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ABSTRACT

Texas' eighth annual evaluation of state-approved gifted/talented programs consists of four components: (1) an evaluation of operational programs; (2) a case study of high school gifted/talented programs; (3) an evaluation of developmental programs; and (4) a survey of districts without state-approved gifted/talented programs. The evaluation of operational programs focuses on student identification, enrollment, program organization, curriculum, and staff development. The case study of high school programs examines the interrelationships among a number of school, program, and student variables in relation to students' scores on standardized tests. The case study covers district demographics, student characteristics, organizational patterns, areas of program emphasis and class size, number of hours spent doing homework and number of semesters completed in four subjects, number of honors and Advanced Placement Courses, students' participation in extracurricular activities, students' perceptions, and teaching skills used in the gifted/talented program. The developmental component evaluates programs being initiated but not yet operational, detailing program development, enrollment, program organization, and teacher and administrator training. The fourth component identifies reasons why the districts without gifted/talented programs have not applied for state funding. Short sections on special projects, methodology, and a review of the literature are also included, as are 27 tables and 5 appendixes containing supplementary statistical analyses. (PB)

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PROGRAM EVALUATION REPORT

GIFTED/TALENTED EDUCATION

Texas Education Agency
Austin, Texas

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PROGRAM EVALUATION REPORT

GIFTED/TALENTED EDUCATION
1986-87

EXECUTIVE SUMMARY

Program Description

In 1979, the 66th Texas Legislature first made state funds available for public school programs for gifted/talented students. The legislature defined a gifted and talented student as one "...who by virtue of outstanding mental abilities, is capable of high performance. The student may demonstrate, singly or in combination, above-average achievement or potential in such areas as general intellectual ability, specific subject matter aptitude, ability in creative and productive thinking, and leadership ability." (Texas Education Code, §21.651).

State-approved gifted/talented programs follow the guidelines provided in The Texas State Plan and Guidelines for the Education of the Gifted/Talented. This plan establishes a long-range goal for statewide program development and outlines the responsibilities and activities of the agencies charged with program development. Included in this plan are seven program components in the areas of planning, student identification, program organization, staff development, curriculum, parental and community involvement, and evaluation.

Students are identified for the program through the use of multiple measures. Students are generally selected for program services based on rankings derived from scores on standardized tests, tests of general abilities, additional tests to screen for creativity, grades, recommendations, and interviews with the student.

While 143,539 students were reported served in state-approved operational programs, state funds were allocated to serve 92,482 students. Funds were allocated to developmental programs for 5,424 students to be identified in the 1986-87 school year and served in the fall of 1987.

The 1986-87 appropriation for gifted/talented programs was $7,040,030. Of this amount, $351,904 was allocated to districts for developmental programs and $6,236,665 was allocated for operational programs.

A total of 436 districts received state funds for gifted/talented programs. One hundred fourteen (114) programs were developmental and 372 were operational. Forty-nine (49) districts received state funding for both developmental and operational programs.

A significant change in gifted/talented education made by the 70th Legislature in 1987 was to mandate gifted/talented programs at all grade levels no later than the 1990-91 school year (Texas Education Code, §21.652). During the 1986-87 school year, 625 districts did not apply for state funding for gifted/talented programs. Students in these

districts accounted for approximately 16 percent of the total statewide enrollment.

Evaluation Design

This was the eighth year the Texas Education Agency (Agency) evaluated state-approved gifted/talented programs. The 1986-87 program evaluation consisted of four components: (1) an evaluation of operational programs, (2) a case study of high school gifted/talented programs, (3) an evaluation of developmental programs, and (4) a survey of districts without a state-approved gifted/talented program.

The purpose of the first component of the evaluation was to describe the implementation of the gifted/talented program in districts with operational programs. Of the 372 districts with an operational program, 363 (98 percent) returned the data collection instrument to the Agency.

In addition to the annual evaluation, a case study of high school gifted programs was conducted for two reasons. First, even though previous evaluations at the state level had collected general information about these programs, little specific information was gathered regarding the types of programs offered and characteristics of students in these programs. One purpose of the case study was to collect sufficient data to develop a profile of high school gifted/talented programs and students. A second purpose for conducting the case study was to examine the interrelationships among a number of district, program, and student variables in relation to scores on standardized tests.

For the case study, all 144 districts with a state-approved program in grades 10, 11, or 12 received six to 36 copies of a questionnaire, depending on the size of the district. These questionnaires were completed by randomly selected high school gifted/talented students. On the same questionnaire, information was collected from the student's teacher, school counselor, and the gifted/talented program coordinator. Of the 144 districts with state-approved high school programs, staff in 117 (81 percent) returned the questionnaires to the Agency. A total of 1,500 questionnaires were distributed, 1,140 (76 percent) were returned and used in the analysis.

The third component of the evaluation was designed to determine the extent to which developmental programs had completed activities in preparation for serving students in the fall of 1987. Of the 114 data collection instruments distributed to districts with developmental programs, 113 (99 percent) were returned to the Agency.

The fourth component of the evaluation was a short, one page survey distributed to the 625 districts without a state-approved gifted/talented program. The purpose of the survey was to identify reasons these districts have not applied for state funds. Five hundred seventy-four (92 percent) were returned to the Agency.

Since the data in this report were not obtained from a strictly controlled experimental research design, attempts to draw inferential conclusions from the data should be undertaken with considerable

caution. Correlational relationships neither imply nor preclude causal relationships.

Findings

Operational Programs.

1. Staff in 43 percent of the programs reported problems with student selection procedures. The most frequently reported problem with student identification was that classroom teachers are not familiar with the characteristics of the gifted/talented. Nineteen percent reported difficulty in identifying minority students (pages 12-13).

2. More than half of the districts offering an operational program in 1986-87 will have to add a gifted/talented program at six grade levels in order to meet the mandate by 1990-91. Eighty-six percent of the districts will add a program at the kindergarten level and approximately two-thirds will add programs at grades 10 through 12 (page 14).

3. Seventy-three percent of the students served were "Anglo." The remaining percent (27) does not compare favorably to the total percentage of minority students (37) in the districts with operational programs (pages 15-16).

4. It was not uncommon for students to be served in more than one area of program emphasis. That is, one student may be counted in more than one area. Given this, 78,374 students were served in specific subject matter aptitude, 74,125 in general intellectual ability, 37,688 in creative and productive thinking, and 25,295 in leadership ability (page 17).

5. A large degree of variation was found in the instructional arrangements used in gifted/talented programs. Use of a resource room was the most frequently reported prototype at the elementary level, special classes at the middle/junior level, and honors courses at the secondary level. One issue requiring clarification by the Agency is whether honors courses should be considered a part of the gifted/talented program if the courses are not differentiated for gifted students (pages 19-20).

6. In all three grade spans, the majority of gifted/talented students received services one to five hours per week, with approximately 20 percent of the students participating as many as 10 hours per week. However, in larger districts, there is a move toward special or magnet schools. Students in these programs may spend 26 to 40 hours per week in classes for the gifted (page 20).

7. A reasonably extensive inservice training program was found to exist in most programs. For example, 83 percent of the programs reported offering inservice training in "Developing a Differentiated Curriculum." The most frequently reported inservice topic for principals, regular classroom teachers, and

counselors was in the area of student identification (pages 22-23).

Case Study.

1. The sample of high school gifted/talented students in the case study performed well on both the verbal and mathematics portions of the Preliminary Scholastic Aptitude Test (PSAT) (page 27).

2. Number of years enrolled in the gifted/talented program was predictive of a higher score on the PSAT. This finding suggests that enrollment in a gifted/talented program does have an impact upon combined score on the PSAT (page 30).

3. Data describing the components of the gifted/talented program indicate that there are generally two categories of high school gifted/talented programs: one in which the curriculum is differentiated and identification procedures are in place and one in which both elements are less likely to be implemented (page 32).

4. It was found that a positive relationship existed between combined PSAT score and the number of semesters of mathematics and social studies completed. That is, the more semesters completed in each of these subjects, the higher the test score (page 37).

5. This pattern of increased preparation being associated with a higher test score was also found to exist for the number of honors courses reported to be completed by the student. Approaches that might be developed further include offering courses through Inter Act, Ti-In, or other distance learning systems (pages 39-41).

6. The level of student participation in extracurricular activities and nonschool related work was high. Students were found to be most likely to participate in foreign language activities and religious activities. Sixty percent reported working at a nonschool related part-time job (page 42).

7. Two measures of students' perceptions were used. Responses to the first instrument indicated that the large majority of students perceived that they were receiving the type of instruction generally associated with a well developed gifted/talented program. The second measure of students' perceptions was designed to measure the students' need for structure. Overall, responses to this instrument showed that a majority of students preferred an unstructured instructional environment and were independent learners (pages 44-48).

8. Data collected from a sample of teachers of the gifted indicated that more than 60 percent had received no college/graduate training in gifted/talented education. This reported lack of training is related, in part, to the unavailability of courses in gifted/talented education (page 49).

Developmental Programs.

1. Seventy-seven percent of the students identified to be served in the fall of 1987 were "Anglo." The remaining percent (23) does not compare favorably to the total percentage of minority students (35) in districts with developmental programs (pages 55-56).

2. While some programs have invested considerable effort in providing inservice training for teachers and administrators, staff in 61 percent of the programs reported offering 30 hours or less of teacher training and 83 percent reported offering 30 hours or less of training for administrators (page 58).

Special Projects.

1. Five special projects were sponsored by the Division of Gifted/Talented Education during the 1986-87 school year. These included regional staff development workshops, the Texas Governor's School, the Texas Future Problem Solving Program, the Odyssey of the Mind Program, and Institutes for Teachers of Young Disadvantaged Students (pages 61-62).

Survey of Districts Without A State-Approved Gifted/Talented Program.

1. Nineteen percent of the districts without a state-approved gifted/talented program offered a gifted/talented program in 1986-87 that was supported entirely from local and/or other funds. A total of 8,891 students were reported to be served in these programs, bringing the reported total number of students served statewide to 152,430 (pages 63-64).

2. Staff in districts were asked to select the most important reason for not applying for state funds. Lack of adequatesupplementary state funding and too many competing priorities were the most frequently reported reasons for not applying for state funding (page 63).

3. When asked, "What level of funding would have to be made available before your district would apply for gifted/talented funds from the state?", 68 percent responded "greater than .12 x the adjusted basic allotment" (pages 63-64).

4. Considering the amount of resources required to implement a gifted/talented program at all grade levels, one possibility of assisting districts is to offer courses through Inter Act, Ti-In, or other distance learning systems. Staff in 41 percent of the districts responded they would apply for state funding of gifted/talented programs if distance learning systems provided courses for gifted/talented students (page 64).

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PROGRAM EVALUATION REPORT
GIFTED/TALENTED EDUCATION
1986-87

INTRODUCTION

This report presents findings from the annual program evaluation of state-approved gifted/talented (G/T) programs. For this report, state-approved is interpreted as receiving Foundation School Program funds specifically for gifted/talented programs. As will be discussed later, some students are served in G/T programs in districts not receiving targeted G/T funds, although the majority of G/T students are served in state-approved programs.

The purposes of this program evaluation include the following:

1. Describe the implementation of gifted/talented programs in school districts,

2. Provide a profile of Texas high school gifted/talented programs and students,

3. Conduct an exploratory study of outcome variables in Texas high school gifted programs, and

4. Survey the status of gifted/talented programs in Texas school districts that do not have a state-approved gifted/talented program.

In 1979, the 66th Texas Legislature first made state funds available for public school programs for G/T students. The legislature defined a gifted and talented student as one "...who by virtue of outstanding mental abilities, is capable of high performance. The student may demonstrate, singly or in combination, above-average achievement or potential in such areas as general intellectual ability, specific subject matter aptitude, ability in creative and productive thinking, and leadership ability." (Texas Education Code, §21.651 - Appendix I).

Generally, gifted/talented programs have educational goals for gifted students that address the following areas:

1. Mastering the major concepts in the content areas,

2. Extending student abilities in higher-level thinking,

3. Developing the skills and strategies that enable students to become more independent, creative, and self-sufficient searchers after knowledge, and

4. Developing their excitement about and a lifelong interest in learning.

The goals of the gifted/talented program reflect an emphasis on individual learning styles and intellectual and academic abilities. Teaching strategies are formulated to enable students to develop their abilities, particularly in the areas of creativity, productive thinking, planning, decision-making, independence, and leadership. Individual initiative, self-direction, and originality are encouraged in confronting problems. The program creates opportunities that stimulate realistic goal setting and an attitude of inquiry. Projects are designed to expand the interests of the student and to aid him or her in developing cognitive abilities. Classroom activities often incorporate an interdisciplinary approach unavailable to the student in the regular classroom.

State-approved G/T programs follow the guidelines provided in The Texas State Plan and Guidelines for the Education of the Gifted/Talented. This plan establishes a long-range goal for statewide program development and outlines the responsibilities and activities of the agencies charged with program development. The plan also includes guidelines to assist school districts in planning, implementing, improving, and maintaining appropriate educational services for the gifted/talented. Included in this plan are seven program components in the areas of planning, student identification, program organization, staff development, curriculum, parental and community involvement, and evaluation. These components are briefly discussed below.

1. Planning: Careful planning is required if programs for G/T students are to be successful. Planning a program usually begins one year prior to implementation. To do the planning, a committee composed of school district personnel and interested parents and community members is established and charged with developing a long-range plan for the education of the G/T students in the district.

   The district's long-range plan provides a framework for developing K-12 services for the G/T students of the district and serves as a checklist on progress in program implementation. The plan combines current research in gifted education with the philosophy and needs of the district with regard to its gifted population. The plan also includes a district definition of its gifted student population and program goals and objectives that are compatible with the district's general philosophy of education.

2. Student Identification: The purpose of identification is to determine the students to be served and in which program areas they will be served. Some students may be served in more than one area of giftedness. The identification process is comprehensive, consisting of two distinct steps: (1) nomination and screening and (2) selection. This process is coordinated by a committee of professionals, and students must be selected on the basis of multiple and specific criteria consistent with the area(s) of giftedness addressed by the program. Controversy over the definition of giftedness and the validity of the criteria used to select gifted students are difficulties for G/T programs.

3. Program Organization: Each school district determines how the G/T program is to be delivered. Decisions about the delivery of the program are made considering several factors including the areas of giftedness identified in the student population, the points of view represented by both educators and the lay community about gifted education, the personnel available for the program, and the manner in which gifted education will be integrated into or coordinated with the regular program.

   Some programs are composites of several types of program delivery. Program delivery may differ by campus or grade level, and several administrative patterns may be used to implement a program at any grade level. Most programs are strengthened by their ability to adapt to learning styles of students and to the abilities and skills of the teaching staff at both elementary and secondary levels. A commonly used type of program delivery employs a resource room where students leave their regular classroom to receive instruction. In another type of delivery system, students attend special classes where they may receive all their instruction in a content area from a specially assigned teacher.

4. Staff Development: Staff development objectives describe the continuing inservice program that will insure effective implementation of the program. Staff development activities are an outgrowth of the program's objectives and are planned to train administrators, teachers, and others who are responsible for implementing the program.

5. Curriculum: Because G/T students possess characteristics that make them different from other students, their curriculum must be differentiated from that of other students. Curriculum for the gifted involves the use of course content, methods, and materials beyond those practical or essential for other students. Differentiation for the gifted also implies modification of student goals and objectives, instructional strategies, learning experiences, evaluation, and scope and sequence of the curriculum.

6. Parental/Community Involvement: Parental and community involvement begins with the student identification process and is integrated throughout the program. Such involvement is a key factor in the development and maintenance of the local G/T program. Parent participation in the initial planning, committee meetings, and conferences and workshops promotes communication between parent and school. A community "resource bank" may be maintained listing resources that may be used to benefit gifted students. Also, the provision of a parent education program is a goal of many programs.

7. Evaluation: The purpose of evaluating gifted/talented programs at the local level is to determine the extent to which the goals and objectives of the program are being met. Evaluation procedures are comprehensive and ongoing and are developed by persons involved in program planning and implementation. Evaluation

results provide the basis for recommendations for future program directions.

From 1979-80 through 1984-85, G/T programs that received funds from the state served the students during the same year the funds were allocated. However, House Bill 1393, passed by the 69th Legislature, created two categories of programs. Beginning with the 1985-86 school year, districts could obtain both developmental and operational funds but not for the same grade levels. Developmental funds support one-year planning activities; operational funds support established programs.

Table 1 summarizes data regarding state funding of G/T programs from 1979-80 through 1986-87. Note that from 1979-80 through 1984-85, one program may include several districts. From 1979-80 through 1986-87, the amount of funds appropriated increased from $2,000,000 in 1979-80 to $7,040,030 in 1986-87. Of this amount, $6,236,665 was allocated for 372 operational programs and $351,904 was allocated for 114 developmental programs. The value of the Price Differential Index (PDI) for each district modifies this amount for individual districts. The PDI incorporates adjustments for sparsity, wealth, and other factors. Some districts fund G/T programs entirely from local resources without applying for state support. Also, it is very common for districts to serve more students than are allowed for fund allocation determinations. Most districts that receive state funding supplement the allotment with local and, where available, external funding from federal Chapter II discretionary funds or from private foundations.

A significant change in G/T education made by the 70th Legislature was to mandate G/T programs statewide at all grade levels no later than the 1990-91 school year (Texas Education Code, §21.652 - Appendix I). During the 1986-87 school year, the 625 districts that did not apply for state funding for G/T programs represented approximately 16 percent of the eligible students statewide. Some of these students will be served in summer programs as a result of a change in State Board of Education rules (Title 19, Texas Administrative Code, §89.56). This change allows school districts with an average daily attendance of 1,000 or less to offer summer programs for G/T students as an alternative to full-year state-funded programming. However, a district that currently operates a full-year G/T program is not permitted to reduce its services for G/T students to a summer program only.

State Board of Education rules were also changed regarding teacher education in the area of gifted education. Effective September 1, 1991, as a result of Title 19, Texas Administrative Code, §137.559(c)(6), the all-level gifted and talented permissive endorsement may be added to a valid initial teaching certificate that requires a college degree.

The following two sections of this report will briefly review issues in the program evaluation of G/T programs and describe the evaluation design. The findings of the program evaluation in relation to operational programs, developmental programs, and a survey of districts without a state-approved G/T program will then be presented.

Table 1

State Funding of Gifted/Talented Programs 1979-80 Through 1986-87

	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87
Appropriation	**$2,000,000**	**$3,000,000**	**$3,620,000**	**$4,380,000**	**$4,445,700**	**$4,513,350**	**$6,901,949**	**$7,040,030**
Funds Allocated to Programs	$1,801,703	$2,827,992	$3,293,573	$4,155,872	$4,038,996	$4,029,372	Dev. $ 810,986 Oper. $5,400,765	Dev. $ 351,904 Oper. $6,236,665
Number of Programs Funded	62	93	98	114	108	144	Dev. 171 Oper. 295	Dev. 114 Oper. 372
Number of Districts Funded	122	166	202	261	278	318	404	436
Number of Students Served	15,528	28,207	39,285	42,493	54,848	60,272	63,709	92,482*

*This figure represents the number of gifted/talented students in the operational programs that state funds supported. The total number of students reported as served was 143,539. Funding was also provided for an additional 5,424 students in developmental programs.

A SELECTED REVIEW OF THE LITERATURE ON ISSUES IN THE EVALUATION OF GIFTED/TALENTED PROGRAMS

Evaluations of gifted/talented programs have traditionally been formative, focusing on describing the ways in which the program was implemented and identifying areas that require attention to improve the program (Carter and Hamilton 1985; Callahan and Caldwell 1986). Summative outcomes for such programs have most often been subjective measures such as surveys of program participants, parents, and others involved to determine the overall level of satisfaction with the program and again, to find areas requiring improvement. This approach has carried over into the classroom as well, with measures of student progress most often based on teachers' evaluations of students' products and students' self-evaluation of their work (Parke and Buescher 1982).

Three reasons that evaluations of gifted programs are limited in comparison to evaluations of regular education programs are a lack of ability to define common objectives, measurement and statistical problems, and lack of appropriate evaluation designs. Each of these issues is briefly discussed below.

1. Lack of Ability to Define Common Objectives: Assessing the attainment of districts' program objectives is not possible at the state level for several reasons. First, the kinds of programs offered to gifted students vary considerably from district to district and no agreed upon standards of good programming exist within the field of gifted education for use in establishing criteria for specific program functioning (Callahan 1986).

   Second, many of the objectives for gifted students are very complex, not easily defined, and highly individualized for each student. While a reading skills program for average or slow learners may have enough uniformity in its objectives to justify large scale standardized testing, a program for gifted students may have many different objectives for each student (Renzulli 1975). These difficulties result in an inability to set standards of performance for gifted programs against which achievement can be measured at the state level.

2. Measurement and Statistical Problems: Perhaps the most important issue in the program evaluation of gifted programs is the issue of measurement and/or instrumentation used to assess program effectiveness. There are a number of reasons standardized test scores are inappropriate for use in evaluating G/T programs at the state level.

   First, many programs for the gifted place a high premium on the development of such characteristics as originality, ability to do creative thinking, and leadership. Achievement test scores alone cannot validly assess student progress in these areas and no appropriate measures of these other traits are currently available. In fact, it is doubtful whether any paper-and-pencil test can serve as a valid means for examining such gains (Gallagher 1960; Renzulli 1975).

Furthermore, normative data do not exist for gifted students. There are no empirical studies that provide norms for expected growth over a specified period of time in either the traditional academic areas or in the areas of critical thinking, creativity, or higher-level thinking skills.

The use of standardized achievement tests also assumes that students are studying the same curriculum at the same time. That assumption is unwarranted in a program that individualizes the curriculum for its students and allows for independence and self-direction by the student.

Standardized tests present another problem that results from a phenomenon called regression-toward-the-mean. That is, students who score near the top of a scale will tend to score nearer the mean on a second administration of the test. These gifted students may do worse on the posttest (Kerlinger 1986).

In addition, problems arise when norm referenced tests developed for general populations are used with gifted students. Conventional standardized tests are based on the normal distribution curve and for this reason the equality of units of measurement is open to serious question. The main issue in using age, grade, or percentile norms is that we cannot assume that a year's growth or a growth in a given number of percentile points is a uniform unit. Thus, if the performance of an average student increases from the 40th to the 50th percentile over the course of a school year, the assumption cannot be made that this is a greater gain than that made by a G/T student whose score increased from the 90th to the 95th percentile. The G/T student scored at the upper end of the normal curve where it is much more difficult to show an increase in percentile points. For this reason, when standardized tests are used, comparisons between G/T students and other populations should be avoided (Renzulli 1975).

3. Lack of Appropriate Evaluation Designs: Evaluation design refers to the procedures and conditions employed by the evaluator to collect data. A review of the literature on evaluation designs for gifted/talented programs indicates that little consideration has been given to the development of appropriate evaluation designs for these programs (Payne and Brown 1982).

At least two problems exist with the use of experimental designs to evaluate gifted programs. First, pure experimental designs are based on the assumption that students can be randomly assigned to experimental and control groups. Generally, it is not possible to leave an identified student out of a gifted program. Once assignments have been made, it is not possible to generate a random equivalent control group that receives a "different treatment" or no treatment at all. Second, resources for program development are often too limited for more than one curriculum or program alternative to be developed and implemented (Callahan 1983).

Even though literature on evaluation design for gifted programs is limited, several papers have discussed the use of quasi-experimental designs and the ethical and logistical issues of forming comparison groups (Carter 1986; Gallagher 1960; Payne and Brown 1982). While these approaches may be useful at the local level, the lack of common objectives for gifted programs statewide makes them inappropriate for use at the state level.

Callahan (1983) points out that given the limitations of evaluation designs, it is more appropriate to use alternative designs and seek to establish evidence that will satisfy the "Reasonable Person." The approach based on the "Reasonable Person" is predicated on the assumption that if enough supportive data can be gathered from enough independent sources, then one can be reasonably assured of the truth of the assertion.

EVALUATION DESIGN

This was the eighth year the Texas Education Agency (Agency) evaluated state-approved G/T programs. The 1986-87 program evaluation consisted of four components. These included an evaluation of operational programs, a case study of high school G/T programs, an evaluation of developmental programs, and a survey of districts without a state-approved G/T program. Copies of the data collection instruments are available in a separate document from the Agency's Division of Program Evaluation.

Operational Programs: The purpose of this component of the evaluation was to describe the implementation of the G/T program in districts with operational programs. The data collection instrument sent to each operational program contained questions related to student identification, enrollment, program organization, curriculum, and staff development. Three hundred sixty-three of the 372 (98 percent) data collection instruments were returned to the Agency.

In addition to the annual evaluation, a case study of high school G/T programs was conducted. There were two purposes for the case study. First, even though previous evaluations at the state level had collected general information about these programs, little specific information was gathered regarding the types of programs offered and the characteristics of students in these programs. One purpose of the case study was to collect sufficient data to develop a profile of high school G/T programs and students.

A second purpose for conducting the case study was to examine the inter-relationships among a number of district, program, and student variables in relation to scores on standardized tests. As previously discussed, no single objective measure is considered to be totally successful in measuring the impact of G/T programs. However, in a time of fiscal crisis with increased emphasis on educational accountability, a need clearly exists to identify ways of measuring outcomes of G/T programs.

For the case study, all 144 districts with a state-approved G/T program in grades 10, 11, or 12 received six to 36 copies of a questionnaire, depending on the size of the district. These questionnaires were completed by randomly selected high school G/T students. On the same questionnaire, information was collected from the student's teacher, school counselor, and the G/T program coordinator.

Data collected from the student included demographic data such as sex, ethnicity, family socioeconomic status, and length of time in the G/T program. Students also answered questions about their educational aspirations, high school academic program, perceptions of the G/T program, need for structure, and involvement in extracurricular activities both in and out of school.

Once the questionnaire was completed by a G/T student during a class for the gifted, it was returned to the student's teacher. The teacher then completed a section of the questionnaire related to the number of hours of inservice training in G/T received during the past year and the types

of skills that are involved in teaching G/T students. A teacher may have had more than one student in the class who completed the questionnaire. If this was the case, the teacher completed only one questionnaire. As a result, the number of teachers in the sample is considerably less than the number of students.

The school counselor then provided information for each student in the sample such as the amount of time spent in gifted classes each week, the number of honors courses completed by the student, and the area of program emphasis the student was enrolled in. Scores on standardized tests such as the Preliminary Scholastic Aptitude Test/National Merit Scholarship Qualifying Test (PSAT) and the Scholastic Aptitude Test (SAT) were also provided by the school counselor.

Coordinators of the G/T program provided information about the program prototype(s) (organizational patterns) offered in the program and indicated whether the curriculum in G/T classes was differentiated from the curriculum in the regular classes. Information was also provided regarding whether student selection procedures were in place for each component of the program.

Of the 144 districts with state-approved high school programs, staff in 117 (81 percent) returned the questionnaires to the Agency. A total of 1,500 questionnaires were distributed, of which 1,140 (76 percent) were completed with student, school counselor, and program coordinator entries. Teachers of the gifted completed 518 (45 percent) of the 1,140 questionnaires returned.

District data such as geographic region, average daily attendance, ethnic composition, and district wealth were also collected. All district data were identified by a special demographic code. Each demographic code contained more than one district. In this way, no student, staff, or district could be identified. Appendix II provides the categories of data used for each of these four variables.

Developmental Programs: The purpose of this component of the evaluation was to determine the extent to which developmental programs had completed activities in preparation for serving students in the fall of 1987. The data collection instrument sent to each developmental program included questions about program development, enrollment, program organization, and teacher and administrator training. Of the 114 data collection instruments distributed to districts with developmental programs, 113 (99 percent) were returned to the Agency.

Survey of Districts Without a State-Approved Program: A short, one-page survey was distributed to the 625 districts without a state-approved G/T program to identify reasons these districts have not applied for state funds. Five hundred seventy-four (92 percent) were returned to the Agency.

Table 2 summarizes the return rate of the four data collection instruments used for evaluating the gifted/talented program. A high return rate was obtained for all instruments except the questionnaire used for the study of high school programs. This was not as high as

might have been desired, but the sample represented 81 percent of the districts with state-approved high school G/T programs.

TABLE 2

RETURN RATE OF INSTRUMENTS USED FOR 1986-87 PROGRAM EVALUATION

Instrument	Number Distributed	Number Returned	Percent Returned
1. Data Collection Instrument (operational programs)	372	363	98
2. Case Study Questionnaire (high school operational programs)	1,500	1,140	76
3. Data Collection Instrument (developmental programs)	114	113	99
4. Survey of Districts Without a State-Approved Program	625	574	92

Data from the data collection instruments distributed to each operational program, developmental program, and the survey of districts without a state-approved G/T program were visually examined for consistency and accuracy. Once this was completed, data were entered and verified by Agency key entry staff.

Data from the case study of high school G/T students were entered on NCS General Purpose Answer Sheets and returned to the Agency. These answer sheets were then reviewed and any stray marks removed that would interfere with the scoring of these data. Staff at Regional Education Service Center XX scored these answer sheets and compiled them onto tape for Agency use. All data were then summarized and analyzed using SAS software for data analysis.

OPERATIONAL PROGRAMS

This section will present data related to operational programs. Part I (pages 12-25) will discuss data from the 363 operational programs that returned the data collection instrument sent to all districts with operational programs. In general, these data provide a description of the program components outlined in The Texas State Plan and Guidelines for the Education of the Gifted/Talented.

Part II (pages 26-53) presents data collected from a case study of high school G/T programs and students. These data are supplemental to Part I and represent 117 districts or 81 percent of the districts with state-approved high school programs.

PART I

Student Identification

Student identification involves a process that consists of two steps: (1) nomination and screening and (2) selection. Because of the diversity of G/T programs, there is no standard procedure for student selection. Each district develops local selection procedures based on state guidelines described in The Texas State Plan and Guidelines for the Gifted and Talented. The districts are required to use five criteria for selecting gifted students. At least one criterion must be objective and one must be subjective. The five most frequently reported criteria used were teacher input (checklists, rating scales), achievement test scores, group administered abilities test scores, parent input (checklists, rating scales), and review of students' products or performance.

When asked if there were problems with student identification, staff in 43 percent of the programs reported having difficulties. Table 3 presents problems that were reported with student identification.

TABLE 3

PERCENT OF OPERATIONAL PROGRAMS REPORTING
PROBLEMS WITH STUDENT IDENTIFICATION
N=363 DISTRICTS*

Problems With Student Identification		Percent of Programs
1.	Classroom teachers not familiar with characteristics of the gifted/talented	29
2.	Difficulty in identifying minorities	19
3.	Inability to identify "quiet" students	15
4.	Difficulty in identifying other students with special needs	14
5.	Criteria are not selective enough	13
6.	Re-identification of students from previous school year	11
7.	Inappropriate screening instrument	5
8.	Criteria are too selective	5

* Table 3 represents a duplicated count. Staff in districts may have reported more than one problem with student selection.

The most frequently reported problem with student identification was that classroom teachers are not familiar with the characteristics of the gifted/talented. Staff in 29 percent of operational programs reported this to be a problem. Significantly, 19 percent reported difficulty in identifying minority students.

Part of the difficulty in selecting minority students may be associated with the use of achievement testing to select students. Given the historic difficulties associated with minority performance on many standardized measures, the underrepresentation of these students in these programs might be predicted. Many districts, however, have not accepted this situation and are instituting special programs to equitably select G/T minorities.

Enrollment

While Table 1, (page 5), represents the number of students served with state funds in operational programs, Table 4 presents, by grade level, the total number of participating students and the percent of districts offering gifted/talented services at the grade levels. Based on 363 of 372 state-approved programs returning the data collection instrument in time for this report, 143,539 students were reported to be served with state and local funds. This is an increase of 28 percent from the number of students reported to be served during the 1985-86 school year.

The increase in number of students served is primarily a result of 77 additional operational programs applying for state funds in 1986-87.

Of the students in operational programs, the percent served by grade span were elementary (kindergarten through fifth grade), 48 percent; grades 6 through 8, 28 percent; and grades 9 through 12, 24 percent. Ninety percent of the districts served students at grade 4, more than at any other grade level.

All districts are required to offer a G/T program in grades K-12 by the 1990-91 school year. An examination of Table 4 indicates that more than half the districts offering an operational program in 1986-87 will have to add a G/T program at six grade levels by 1990-91. Eighty-six percent of the districts will add a program at the kindergarten level and approximately two-thirds will add programs at grades 10-12.

TABLE 4

UNDUPLICATED COUNT OF PARTICIPANTS IN DISTRICT STATE-APPROVED GIFTED/TALENTED OPERATIONAL PROGRAMS 1986-87 BY GRADE LEVEL N=363 DISTRICTS

Grade Level	Number of Students Served*	Percent Districts**
K	2,550	14
1	8,206	31
2	11,915	51
3	14,663	78
4	16,948	90
5	14,947	88
6	14,055	78
7	13,303	64
8	13,267	62
9	9,779	37
10	8,621	32
11	8,051	32
12	7,234	32
Total	143,539	

* Unduplicated count.
** Districts will be counted in more than one grade level.

Table 5 shows the number of students served in operational programs by grade level and ethnicity. The sum of the percentage of all minority students reported served is 27 percent. Other Agency data indicate that the percentage of minority students in districts with operational programs is 37 percent. Thus, there is a 10 percent discrepancy between the percentage of minority students in districts with operational programs and the percentage of minority students served in operational programs. However, there was an increase of 1 percent from 1985-86 to 1986-87 in the number of minority students served in these programs.

TABLE 5

NUMBER OF STUDENTS SERVED BY GRADE LEVEL AND ETHNICITY
N=363 DISTRICTS

Grade Level	American Indian or Alaskan Native	Asian or Pacific Islander	Black, not Hispanic	Hispanic	White, not Hispanic
K	5	61	297	359	1,828
1	8	310	724	1,004	6,160
2	15	416	1,063	1,711	8,710
3	11	537	1,576	2,146	10,393
4	25	624	1,636	2,597	12,066
5	16	538	1,392	2,583	10,418
6	22	470	1,329	2,420	9,814
7	17	487	681	2,339	9,779
8	9	446	697	2,557	9,558
9	10	449	526	1,468	7,326
10	9	334	397	982	6,899
11	6	372	391	1,023	6,259
12	9	354	304	1,042	5,525
Total	162 (<1%)	5,398 (4%)	11,013 (8%)	22,231 (15%)	104,735 (73%)

Program Organization

One way of classifying gifted programs is in terms of services offered. Gifted/talented students demonstrate above average achievement or potential in one or more of the following areas of giftedness: general intellectual ability, specific subject matter aptitude, creative and productive thinking, or leadership ability.

Students of generally high intellectual ability will function well in almost all academic areas. Students who exhibit specific academic aptitude typically may excel in only one or two academic areas. The student with exceptional creative ability can be described as the student who generates unusual, frequent, and high quality ideas or solutions to problems. Students with leadership ability demonstrate consistently exceptional capacity to motivate and organize other students.

More students were reported to be served in programs that addressed specific subject matter aptitude than were served in the other three areas of program emphasis. Many students may have been identified to be served in more than one area of program emphasis. Therefore, an individual student may be counted in more than one of the following areas. During the 1986-87 school year, 78,374 students were served in specific subject matter aptitude, 74,125 in general intellectual ability, 37,688 in creative and productive thinking, and 25,295 in leadership ability (Table 6).

A second way to classify G/T programs is to show the prototypes (administrative or organizational patterns) that are most descriptive. There are many classifications of program alternatives. The basis for developing any program model is to use some form of enrichment, grouping, acceleration, and guidance that is compatible with each district's needs. Each has advantages and disadvantages. In Table 7, the percentage of gifted/talented operational programs using each program prototype is presented by grade span.

TABLE 6

NUMBER OF STUDENTS SERVED BY GRADE LEVEL AND ABILITY AREA*
N=363 DISTRICTS**

Grade Level	AREA OF ABILITY Specific Subject Matter Aptitude	General Intellectual Ability	Creative and Productive Thinking	Leadership Ability
K	744	1,552	890	671
1	1,231	3,981	4,497	1,133
2	3,394	6,180	5,338	1,224
3	4,463	9,179	5,773	2,420
4	6,831	9,654	5,952	3,829
5	7,162	9,872	3,665	3,780
6	8,453	7,994	2,915	3,040
7	8,954	10,710	2,317	1,847
8	9,196	5,119	2,221	1,841
9	7,697	3,081	1,162	1,422
10	7,229	2,618	1,070	1,394
11	6,966	2,359	989	1,367
12	6,054	1,826	899	1,327
Total	78,374	74,125	37,688	25,295

* Table 6 represents a duplicated count. Students may be served in more than one area of program emphasis.

** The total number of districts responding was 363. The actual number of districts may vary by grade level.

TABLE 7

PROGRAM PROTOTYPES BY GRADE SPAN*
N=363 DISTRICTS**

Program Prototype	(Percent of Programs) Grade Span K-5	6-8	9-12
1. Resource room	72	41	9
2. Cluster grouping within the regular class	61	28	11
3. Special class	49	72	40
4. Multi-age or ungraded class	18	14	11
5. Itinerant teacher	14	5	2
6. Honors course	4	24	88
7. Independent study	13	17	30
8. Other	15	9	9
9. Seminar	5	7	23
10. Mini-course	4	4	7
11. Advanced Placement class	4	7	33
12. Mentorships	3	6	22
13. Community programs and sponsorships	5	5	7
14. Special school	7	6	10
15. Tutoring	3	2	2

* Table 7 represents a duplicated count. Staff in districts may have reported serving students in more than one program prototype.
** The total number of districts responding was 363. The actual number of districts may vary by grade span.

At the elementary level, the most frequently used prototype was the resource room. In this arrangement, a teacher of the gifted is in a separate classroom and identified G/T students are pulled from their regular classroom for varying amounts of time per week. Seventy-two percent of the elementary programs used this prototype.

Other commonly used prototypes at the elementary level include cluster grouping within the regular class and special classes. Cluster grouping within the regular class includes a regular classroom with a specific cluster of identified G/T students in that class. Special classes are entire classes of identified G/T students. Cluster grouping within the regular class was reported to be used by 61 percent of elementary programs and special classes by 49 percent.

In grades 6 through 8, special classes were reported to be used by 72 percent of the programs and resource room by 41 percent. Honors courses were the most often reported prototype used at the secondary level. Staff in 88 percent of the programs reported offering honors courses as a component of the G/T program. One issue requiring clarification by the Agency is whether honors courses should be considered a part of the G/T program if the courses are not differentiated for gifted students. Generally, honors courses are different from G/T courses in at least two ways. The curriculum typically taught in an honors course would not be the same as the differentiated curriculum in a G/T program and the criteria used to select honors students usually are not the same as those used to select G/T students.

Data included in Appendix III present the percent of programs offering each program prototype by contact time in the G/T program. These three tables will be discussed jointly since similar patterns are found in each.

In all three grade spans, the majority of G/T students received services one to five hours per week, with approximately 9 to 20 percent of the students participating as many as 10 hours per week. However, in larger districts, there is a move toward special or magnet schools. Students in these programs may spend 26 to 40 hours per week in classes for the gifted. These tables demonstrate the considerable variation in the ways G/T programs are organized as well as in the amount of time students receive services.

Curriculum

Because gifted and talented students possess characteristics and needs that make them different from other students, their curriculum must be differentiated from that of other students. District staff were asked if the district had developed scope and sequence for the curriculum of G/T programs in three areas: content, process, and product. In an instructional program, scope and sequence are terms that indicate (1) the content of what is taught within a discipline or subject and (2) the order in which content components are introduced, applied, and/or reinforced.

Curriculum is a plan of instruction that includes the content to be learned, the processes to facilitate the learning, and the products that result from the learning (Clark 1983; Gallagher 1985; Tannenbaum 1983).

Content refers to the body of knowledge that is to be presented to the student. Staff in 69 percent of the operational programs reported that scope and sequence had been developed in the area(s) of content to be

taught in the program. There are many ways content can be differentiated for G/T students. Some of these include the following:

1. Providing accelerated or advanced content,
2. Providing a greater degree of complexity of content,
3. Introducing content that goes beyond the prescribed curriculum,
4. Allowing students to select content according to interest with provisions for intensive independent study,
5. Working with abstract concepts in a content area,
6. Working with resources beyond those designated for use with regular curriculum, and
7. Increasing time for learning in order to pursue topics more extensively.

Other ways differentiated content is achieved include the following:

1. Encouraging students to move beyond merely factual information toward broader concepts and generalizations,
2. Accelerating the acquisition of knowledge and/or skills that correlate with the student's mental rather than chronological age and complement his or her interests,
3. Relating what is learned in one area of study to other areas and crossing the boundaries of different disciplines to promote application and transfer of learning,
4. Using multi-level resources that are varied and that are beyond those designated for regular curriculum, and
5. Allowing and further encouraging students' election of certain elements of the content.

Curriculum provides a framework to teach thinking processes that are emphasized and other skills that are developed. Staff in 74 percent of the operational programs reported that scope and sequence had been developed in the processes (skills) to be mastered by students.

Students enrolled in gifted/talented programs develop higher-order thinking skills such as analysis, synthesis, and evaluation; critical thinking skills; inductive and deductive reasoning; and inquiry processes. They study the creative process skills that help them to become fluent in their thinking (producing many responses), flexible in their thinking (producing varied responses), and original in their thinking (producing new or original responses). Gifted students also are taught problem-solving processes, which include defining a problem, locating evidence, hypothesizing, validating, and evaluating. Further, they are given opportunities to conduct advanced research and are taught independent study skills.

Products are the illustrations or outcomes of the learning that has taken place. They provide evidence of a differentiated content and the processes that have been acquired. Gifted students are introduced to new experiences and resources for use in product development. Their experiences include or promote variety, complexity, and are often audience-targeted. Staff in 52 percent of the programs reported that

scope and sequence had been produced for the products to be developed by students.

The evaluation of the extent to which a G/T curriculum is differentiated is difficult to accomplish without reviewing teachers' lesson plans and observing classroom activities. Based upon reported information, a majority of operational programs have developed scope and sequence for the content to be studied, processes to be mastered, and products to be produced.

Staff Development

When district staff were asked to indicate the number of teachers of the gifted, 8,216 teachers were reported to have teaching assignments that included teaching both G/T students and students in the regular classroom. An additional 1,159 teachers were reported to have instruction for G/T students as their only assignment.

Inservice training for teachers is a key component of any successful program for the gifted. The purpose of a special training program is to develop those special skills and sets of knowledge that will better prepare the teacher to work with gifted students. Staff in operational programs were asked to provide the number of days of inservice training offered for teachers of the gifted. Table 8 displays the percentage of programs reported by staff to have offered each topic.

The most frequently reported training offered for teachers of the gifted was in the area of curriculum development. Staff in 83 percent of the programs reported offering one or more days of training in this area and 18 percent reported offering six or more days of training. The staff of 75 percent of the programs reported offering training in identifying gifted students and 73 percent reported offering training in the area of problem-solving. "Working With the Gifted Underachiever" was reported to be offered by the fewest programs with 37 percent providing one or more days of training.

TABLE 8
NUMBER OF DAYS OF INSERVICE TRAINING OFFERED FOR TEACHERS BY TOPIC
N=363 DISTRICTS

Topic	(Percent of Programs) Number of Days 0*	1	2-3	4-5	6+
1. Developing a differentiated curriculum	17	26	28	11	18
2. Working with the gifted underachiever	63	21	11	2	3
3. Identifying gifted students	25	48	20	3	4
4. Evaluating student products	47	36	13	1	3
5. Using computers with gifted students	52	28	13	2	5
6. Meeting the affective needs of the gifted	33	43	15	4	5
7. Conducting sessions on the problem-solving process	27	39	18	8	8
8. Evaluation of student progress	44	39	10	2	5
9. Selecting appropriate instructional materials	27	33	23	10	7

* 0 days is interpreted as no training offered.

There are school personnel other than classroom teachers who also need special training to become effective participants in gifted/talented programs. Among them are administrative personnel. Others are counselors and librarians who are actively involved in the programs, but are not likely to have received preparation in their formal training for working with gifted students.

A third group, parents and volunteers, also need training. Parents are provided training to help them understand the special needs of gifted children and to better understand the goals of the G/T program and what the school is trying to accomplish.

District staff were asked, "Did the G/T coordinator receive training during the 1986-87 school year to update his/her knowledge of gifted/talented education?" Staff in 73 percent of the programs responded that the coordinator had received such training.

Table 9 summarizes the percentage of operational programs reported by staff to have offered training to six audiences other than teachers of the gifted. The most frequently reported inservice topic offered for principals, regular classroom teachers, and counselors was "Identification of Gifted Students." Staff in 64 percent of the operational programs reported offering the topic, "Orientation to the District's Gifted Program", to parents. Staff in 27 percent of the programs reported offering this inservice topic to community groups.

Table 9
Inservice Training Offered By Audience
(Percent Programs)
N = 363 Districts

Topic	Audience					
	Principals	Regular Classroom Teachers	Counselors	Parents	Librarians	Community Groups
1. Needs and characteristics of gifted/talented students	47	64	39	45	17	20
2. Orientation to district's gifted/talented program	46	54	31	64	18	27
3. Identification of gifted students	54	68	49	41	12	17
4. Working with gifted/talented students in heterogeneous groups	20	40	14	10	12	4
5. Affective needs of the gifted/talented	24	39	31	32	10	10
6. Out-of-school needs of the gifted/talented	11	13	9	26	7	9
7. Choosing materials for the gifted/talented	24	46	13	16	22	5
8. Developing a differentiated curriculum	31	47	15	11	10	5
9. Organizational/administrative structure needed to meet diversity of learning needs of gifted/talented students	35	21	18	9	5	7

Summary

This section has summarized data obtained from a data collection instrument distributed to all state-approved operational programs. Data were collected in the areas of student identification, enrollment, program organization, curriculum, and staff development.

The most frequently reported problem with student selection was that classroom teachers are not familiar with the characteristics of the gifted/talented. This is somewhat discouraging since training teachers in this area is one of the first steps in beginning a program for the gifted.

It was found that enrollment increased 28 percent from the number of students reported to be served during the 1985-86 school year. More than half the districts offering an operational program in 1986-87 will have to add a G/T program at six grade levels by 1990-91. Enrollment data indicate that there is a 10 percent discrepancy between the percentage of minority students in districts with operational programs and the percentage of students served in operational programs.

In terms of program organization, it was found that more students were reported to be served in programs that addressed specific subject matter aptitude than in the other three areas of program emphasis. The most frequently reported used prototypes were resource room (elementary), special classes (grades 6-8), and honors courses (secondary). An issue requiring clarification by the Agency is whether honors courses should be considered a part of the G/T program if the courses are not differentiated for G/T students.

Staff in operational programs were also asked to report if scope and sequence had been developed in the areas of content, process, and products. Staff in a majority of programs reported that scope and sequence criteria had been developed in these three areas. However, these data should be viewed with caution since determining whether or not scope and sequence have been developed would require extensive effort such as the review of curriculum guides and lesson plans.

Data related to staff development indicated that the most frequently reported training offered for teachers of the gifted was in the area of curriculum development. Respondents indicated that the most frequently offered inservice topic for principals, regular classroom teachers, and counselors was in the area of student identification.

PART II

Case Study*

As discussed earlier in this report, there has been little detailed information collected at the state level about gifted/talented programs and students. There were two purposes for conducting the case study. One purpose was to provide a profile of high school G/T programs and students. The second purpose was to examine the interrelationships among a number of school, program, and student variables in relation to students' scores on standardized tests. This analysis was an exploratory attempt to identify characteristics of districts, programs, and students that correlated with high performance on these tests. All data presented in Part II of this report were based upon a sample of high school G/T programs and students. These data are supplemental to data presented in Part I, unless otherwise noted.

School counselors reported scores for students in the sample on the Preliminary Scholastic Aptitude Test/National Merit Scholarship Qualifying Test (PSAT), the Scholastic Aptitude Test (SAT), and the American College Testing Assessment (ACT). PSAT verbal and mathematics scores were provided for 890 students, SAT combined scores for 435 students, and ACT scores for 188 students. Since the single test having the most responses was the PSAT, the verbal and math scores were combined and used as the outcome variable in the analysis.

The PSAT is a multiple-choice test that measures verbal and mathematical reasoning abilities important to doing college work. There are 65 verbal questions and 50 mathematics questions. This test is administered nationally each year to more than a million students. Most of these students are juniors, but some are sophomores and seniors.

Gifted students perform extremely well on standardized achievement tests. If such a test does not have enough "top" on it, highly able students may score at the upper limits, but their growth cannot be determined because of the low ceiling on the test. Since many standardized tests are designed to provide achievement information for the middle ranges of ability, the content and interpretive data may not be valid for G/T students who deviate markedly from the mean.

An examination of Tables 10 and 11 shows that the sample of G/T students in the case study performed well on both the verbal and mathematics portions of the PSAT. For example, 5 percent of the students scored above the 99th percentile on the verbal section, and 8 percent scored in the 98th percentile on the mathematics section. This limited range of scores reduces the likelihood of finding statistically significant relationships because of the limited variation in the distribution of

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* Assistance in the development of the case study design and in the data analyses was provided by Barbara Ferrell, Ph.D., Assistant Professor, Department of Psychology and Philosophy, Texas Woman's University, Houston, Texas.

scores. Multiple regression analyses and factor analyses were utilized to examine the data.*

TABLE 10

GIFTED/TALENTED STUDENTS' SCORES ON THE VERBAL PSAT/NMSQT
COMPARED TO NATIONAL NORMS**
N=890 STUDENTS

G/T (Percent in Sample)	Scale Score	National Norms (Percentile)***
4.6	70-80	99+
16.4	60-69	96-99
32.0	50-59	80-95
35.4	40-49	46-79
11.6	<40	45 and below

TABLE 11

GIFTED/TALENTED STUDENTS' SCORES ON THE MATH PSAT/NMSQT
COMPARED TO NATIONAL NORMS**
N=890 STUDENTS

G/T (Percent in Sample)	Scale Score	National Norms (Percentile)***
8.2	70-80	98+
24.2	60-69	89-97
37.2	50-59	65-88
22.4	40-49	35-64
8.0	<40	34 and below

* Multiple regression analysis is a method for studying the effects and the magnitudes of the effects of more than one independent variable on one dependent variable. For a discussion of regression analysis, see Kerlinger (1973).
** Includes college-bound juniors only.
*** Source: Paul Williamson, The College Board, Austin, Texas.

Results

District Demographics.

This section will present the results of analyses of data collected from the sample of G/T students in high school programs. Data related to districts' demographics and students' characteristics will be presented first. Following this, both descriptive data and the relationship to students' PSAT score will be presented in four areas: the high school academic program, participation in extracurricular activities, students' perceptions, and teaching skills used in the program.

All 144 districts with state-approved high school G/T programs were mailed six to 36 questionnaires, depending on the size of the district. Staff in 117 districts (81 percent) returned a total of 1,278 questionnaires. In 1,140 of these questionnaires, student, counselor, and program coordinator data were completed. Five hundred twenty teachers responded to the questionnaire. A description of the method used to collect this data is found on page 9 of this report.

District demographic data were collected on geographic location, size of district, ethnic composition, and district wealth. Appendix II provides the categories of data used for each of these variables.

Of the 1,140 questionnaires used for the analysis, 31 percent were from Super Region 3; 30 percent from Super Region 2; 15 percent from Super Region 1; 15 percent from Super Region 4; and nine percent were from Super Region 5. The overrepresentation in certain geographic regions is characteristic of the locations of high school G/T programs. As noted previously, although the 144 districts offer a program at grades 10, 11, or 12, these programs are not evenly distributed statewide.

In terms of district size, 7 percent of the questionnaires were returned from districts with a Refined Average Daily Attendance (ADA) of less than 1,000 students. Fourteen percent were from districts with an ADA of 1,000 to 2,999. Thirty-one percent were returned from districts with a ADA of 3,000 to 4,999 and 10 percent were from districts with a ADA of 5,000 to 9,999. Twenty-four percent were from districts with a ADA of 10,000 to 24,999; 14 percent were from districts with a ADA of 25,000 or more.

Nineteen percent of the districts have a minority enrollment of less than 13.5 percent. Forty-two percent have an ethnic composition of 13.5 percent to 37.4 percent and 39 percent have a minority enrollment of 37.5 percent or higher.

Seventeen percent of the districts are categorized as having an average wealth per student of less than $135,042. More than half (53 percent) are categorized as having an average wealth per student of $135,042 to $246,052 and 30 percent have an average wealth per student above $246,052. In summary, district demographic data indicated that the responding districts were representative of districts with state-approved G/T high school programs in terms of geographic location, ADA category, ethnic composition, and district wealth.

In order to determine if there was a relationship between the districts' demographics and students' PSAT score, a regression analysis was conducted. This analysis indicated that there was a significant statistical relationship between the percentage of minority composition of the district and test score.* The squared multiple correlation for this multiple regression was .0485. It was found that the larger the minority enrollment of the district, the lower the test score. This finding is consistent with other published findings.

A statistically significant relationship was also found between the size of district and the test score, with students in larger districts scoring higher on the PSAT. However, it should be noted that regression analyses are based on correlations and should not be interpreted as causal. That is, a student enrolled in a G/T program in a larger district will not necessarily attain a higher test score. It may be that G/T programs in larger districts meet the needs of G/T students in ways that programs in some smaller districts cannot. This issue will be discussed again later as data related to the number of honors courses offered at the student's grade level are presented.

Student Characteristics.

The sample of 1,140 students was almost evenly divided among tenth, eleventh, and twelfth grade students. Thirty-seven percent were tenth grade students; 33 percent, eleventh grade students; and 30 percent, twelfth grade students. Fifty-six percent were girls and 44 percent were boys; 78 percent were white; and 22 percent minority. This percent minority was equal to that reported for the entire high school G/T population discussed in Part I of this report.

Information related to parents' education and parents' combined income was also collected. Thirty-nine percent of the students' fathers and 51 percent of the students' mothers had received a grade school or high school education. Thirty percent of the students' fathers and 32 percent of their mothers had earned a bachelor's degree. Thirty-one percent of the students' fathers and 17 percent of their mothers held a graduate degree.

Ninety-eight percent of the students reported they plan to attend college. Of these, 60 percent plan to attend a public university, state college, or community college; 28 percent plan to attend a private college or university; and 12 percent plan to attend a private religiously-affiliated college or university.

When asked, "What is the highest level of education you plan to complete beyond high school?," 3 percent of the students said they planned to

* Copies of all regression analyses conducted with case study data are presented in Appendix IV.

pursue a two-year degree and 17 percent reported they planned to complete a bachelor's degree. Thirty-five percent anticipated a master's degree, and 45 percent planned to complete a doctoral or related degree (such as JD, MD, DVM).

In terms of length of time in the program, 27 percent reported being in the program one to three years; 27 percent, four to five years; and 39 percent, six to nine years. Seven percent reported being enrolled in the program for 10 years or longer.

A regression analysis with six student variables as predictors was conducted to determine if there was a relationship between these variables and performance on the PSAT. The variables included number of years in the G/T program, parents' combined income, father's education, mother's education, type of institution the student plans to attend, and level of education the student plans to complete. The squared multiple correlation for this regression analysis was .0742. A statistically significant relationship between three of these variables and PSAT score was found.

Combined family income and father's education were two of the variables found to correlate positively with higher test score. That is, the higher the combined family income and the higher the father's education level, the more likely a student was to achieve a higher test score. These findings were not surprising since many studies have documented the relationship between socioeconomic status and higher scores on standardized tests.

From a programmatic viewpoint, an important finding was that number of years in the G/T program was predictive of a higher score on the PSAT. This finding suggested that enrollment in a G/T program does have an impact upon combined score on the PSAT.

This section has described the study sample and reported the findings of regression analyses conducted on district and student variables. The following discussion will present data related to the high school academic program for G/T students.

The High School Academic Program.

This section will provide a description of the high school G/T academic program and report the results of regression analyses conducted to determine if there was a statistically significant relationship between a number of program variables and performance on the PSAT. A number of areas of the high school academic program are discussed including components of the program, organizational patterns, areas of program emphasis and class size, number of semesters of four subject areas to be completed upon graduation, hours spent on homework, and advanced courses taken.

Components in the Gifted/Talented Program

As noted in Part I (see Table 7, page 19) the most common components of the G/T program were honors courses, Advanced Placement Courses of the

College Board, and special classes for the gifted. It is not uncommon for a district to offer more than one of these components, and some districts offer mentorships as well.

Honors courses at the secondary level are courses with specific entry criteria and materials. Instructional strategies focus on higher level and critical thinking skills, creative and productive thinking, different learning styles, and independent research. It is typical for students other than identified G/T students to be enrolled in honors classes.

The Advanced Placement Program of the College Board (AP) is a program of college-level courses and examinations. Generally, when planned for a full year, AP can take the form of an advanced course, a tutorial, or an independent study. These courses require more work on the part of students and go into greater depth than the usual high school course. Advanced Placement examinations are given each year in the spring and may result in credit or advanced placement in many colleges and universities.

Special classes for the gifted offer a wide range of instructional arrangements that include group seminars, a school-within-a-school, mini-courses, special-topic courses, and interdisciplinary courses in themes. Staff strengths, available facilities, time constraints, and other unique local conditions all contribute to decisions related to the selection of the most appropriate program offering(s) for each district.

Program coordinators were asked, (1) "What are the components of the G/T program at grades 10 through 12?" (2) "Has the district developed and implemented student identification procedures for each component in the secondary G/T program, according to The Texas State Plan and Guidelines for the Education of the Gifted/Talented?" and (3) "Is the curriculum differentiated for G/T students in each component of the program at the secondary level?" Table 12 summarizes the coordinators' responses to these questions.

TABLE 12

COMPONENTS IN HIGH SCHOOL GIFTED/TALENTED PROGRAMS
N=117 DISTRICTS

Component	Is This a Component of the Program? (Percent Programs)	Are Identification Procedures Used?	Is the Curriculum Differentiated?
1. Honors course	62	86	75
2. Special classes for the gifted/talented	42	98	85
3. Advanced Placement Courses of the College Board	37	79	58
4. Honors course specifically for the gifted/talented	36	98	93
5. Other	25	85	73
6. Advanced Placement Courses of the College Board specifically for the gifted/talented	10	100	92

High school components in gifted programs can be divided into two categories based upon the information provided by program coordinators. In the first category programs are designed specifically for gifted students. These include special classes for the gifted, honors courses for the gifted, and Advanced Placement Courses of the College Board offered for the gifted. Districts offering these components appear to have developed courses that have identification procedures in place and offer a differentiated curriculum. For example, 36 percent of all districts with state-approved high school G/T programs reported having honors courses specifically for the gifted. More than 90 percent of these districts also reported having identification procedures and a differentiated curriculum.

The second category of programs includes honors courses, Advanced Placement of the College Board courses, and "other" program components that were not designed and implemented specifically for the gifted. In these programs, identification procedures were less likely to be developed and implemented. A differentiated curriculum was reported to have been developed in 75 percent of honors courses, 58 percent of Advanced Placement Courses, and 73 percent of "other" program components.

Organizational Patterns

Selection of organizational patterns, often called program prototypes, is an essential part of G/T program planning. Program prototypes for

the gifted include three basic elements of enrichment: grouping, acceleration, and guidance. Most programs are made up of some combination of these elements. The amount of contact time for students in these prototypes varies considerably from district to district, with students receiving from one hour per week to a full day of instruction designed specifically for gifted students. Table 13 presents the number of hours per week that students in the sample participated in each of the 14 prototypes.

Regardless of program prototype, it appears that only a small percent of students participated in G/T programs more than 10 hours per week. The only exceptions to this are honors courses, with 94 percent of the students receiving up to 20 hours of contact time per week. This finding is consistent with data reported in Part I for all operational programs that returned the data collection instrument (see Appendix III).

TABLE 13

NUMBER OF HOURS PER WEEK STUDENTS PARTICIPATED IN GIFTED/TALENTED PROGRAMS BY PROTOTYPE

Program Prototype	Number of Students Enrolled in Prototype	(Percent Students) HOURS PER WEEK 1-10	11-20	21-30	31-40+
1. Honors course	872	67	27	5	1
2. Honors course specifically for G/T	452	72	21	3	4
3. Special class for the G/T	326	91	5	<1	3
4. Resource room/library	246	96	3	<1	<1
5. Advanced Placement Courses of the College Board	184	85	11	4	0
6. Independent study	172	99	1	0	0
7. Multi-age or ungraded class	170	72	15	11	2
8. Cluster grouping within the regular class	130	82	14	4	0
9. Seminar	100	100	0	0	0
10. Advanced Placement Courses of the College Board specifically for G/T	65	85	8	5	2
11. Other	52	73	10	17	0
12. Itinerant teacher	48	96	4	0	0
13. Mini-course	18	100	0	0	0
14. Special school	6	100	0	0	0

Areas of Program Emphasis and Class Size

School counselors of students in the sample were asked to provide the one area of emphasis most focused upon in the student's academic program. Forty-nine percent of the students were reported to be served in programs emphasizing specific subject matter aptitude; 40 percent, general intellectual ability; nine percent, creative and productive thinking; and two percent, leadership ability. These figures generally corroborate data reported from grades 10-12 in Part I (see Table 6, page 18). However, data illustrated in Table 6 and the data reported by the students' counselors differ in two areas: creative and productive thinking and leadership ability. These differences probably were the result of the duplicated count of students represented in Table 6 and the unduplicated count reported by the counselor.

The size of G/T classes seems relatively small, with 73 percent of the classes reported having less than 23 participating students. Counselors were asked, "On the average, how large are this student's G/T classes this school year?" Ten percent of the students were reported to be in classes averaging less than 10 students; 34 percent, 11-18 students; 29 percent, 19-22 students; 23 percent, 23-30 students; and 4 percent, more than 30 students.

In order to determine if emphasis of the program or class size were correlated with PSAT score, a regression analysis was conducted. The squared multiple correlation for this regression analysis was .0142. This analysis indicated that there was a statistically significant relationship between three of these variables and PSAT score.

It was found that students enrolled in programs emphasizing general intellectual ability and creative and productive thinking were more likely to score higher than students in programs emphasizing specific subject matter aptitude and leadership ability.

Class size was also found to correlate with a higher test score. That is, the larger the average size of the student's G/T class, the more likely it was that the student scored higher on the PSAT. However, this finding must be considered in light of the fact that 73 percent of the students were reported to be enrolled in classes of less than 23 students.

Number of Hours Spent Doing Homework and Number of Semesters Completed in Four Subjects

Students were asked, "Approximately how many hours per week did you spend doing homework assignments this school year?" Thirty-five percent of the students reported spending 1-5 hours per week; 35 percent, 6-10 hours per week; 16 percent, 11-15 hours per week; 11 percent, 16 or more hours per week. Three percent reported doing no homework.

Students also provided the number of semesters of English, mathematics, science, and social studies they will have completed upon graduation from high school. These results are presented in Table 14. Eighty percent of the students reported they will have completed eight

semesters of English. More than 40 percent will have completed eight semesters of math, with an additional 22 percent completing 10 semesters. Almost three-fourths of the students will have taken six to eight semesters of science and 62 percent will have completed six semesters of social studies.

TABLE 14

NUMBER OF SEMESTERS OF ENGLISH, MATHEMATICS, SCIENCE, AND SOCIAL STUDIES COMPLETED BY GIFTED/TALENTED STUDENTS UPON GRADUATION
N=1140 STUDENTS

	(Percent Students)			
NUMBER OF SEMESTERS	ENGLISH	MATHEMATICS	SCIENCE	SOCIAL STUDIES
4	<1	1	4	6
5	<1	1	2	4
6	<1	14	35	62
7	<1	2	2	5
8	80	43	37	15
9	2	4	1	3
10	8	22	10	3
11	3	3	4	<1
12	1	6	2	<1
13	4	3	2	<1

A regression analysis was conducted to determine if a relationship existed between the number of semesters completed in each of four subject areas and the number of hours spent doing homework and performance on the PSAT. The squared multiple correlation for this regression analysis was .0628. It was found that a relationship existed between the test score and the number of semesters completed in mathematics as well as in social studies. That is, the more semesters completed in each of these subjects, the higher the test score. These findings were statistically significant even though the range of scores on the PSAT is limited. The number of semesters of science completed did not correlate with higher test score; however, the PSAT does not measure skills in science. It is unclear why the number of semesters of English completed was not found to correlate with higher test score while a relationship between the number semesters of social studies completed and higher test score was found to exist.

These findings support the findings of a study of students' performance on the SAT recently conducted by the Agency. In this study students in Texas schools were compared nationally to students with the same number of academic units. The mean score for Texas students consistently surpassed the national mean for every group except those students with fewer than 15 academic credits. These data have implications for continuing to support efforts related to the well-balanced curriculum and increased graduation requirements, especially related to the Advanced High School Program.

The number of hours spent doing homework was found to have a statistically significant negative relationship to the test score. That is, the more hours reported in homework activities, the more likely the student was to have a lower test score. Perhaps one explanation for this finding is that those G/T students who score in the upper range of the PSAT do not find it necessary to spend many hours completing homework assignments.

Advanced Courses

Since honors courses are a major component of the high school G/T program, school counselors were asked to provide the number of honors courses offered at the student's grade level during the 1986-87 school year. Information was also gathered regarding the number of Advanced Placement Courses of the College Board completed by the student.

Table 15 compares the number of honors courses completed by the students during the 1986-87 school year to the students' combined score on the PSAT. Because actual test scores were not reported, mean scores could not be presented. Instead, mean score ranges were used. The mean scores in the table have a possible range of two to 10. A "2" represents scoring below the 45th percentile on the combined PSAT score. A score of "10", on the other hand, represents scoring above the 99th percentile on the combined PSAT score. Other values lie between these extremes. The numbers in the tables are averages that are ordinal measures and should be interpreted as being higher numbers representing superior performance.

TABLE 15

NUMBER OF HONORS COURSES COMPLETED AND PSAT SCORE
N-1140 STUDENTS

Number of Honors Courses Completed in 1986-87	Percent of Students Completing Indicated Number of Courses	Mean Combined PSAT Score of Students Completing Indicated Number of Courses
0 Courses	10	5.15
1 Course	23	5.18
2 Courses	23	5.65
3 Courses	19	5.98
4 Courses	11	6.06
5 Courses	7	6.13
6 Courses	2	5.82
7 Courses	1	6.08
8 Courses	1	5.43
9 or more Courses	3	6.41

An examination of Table 15 indicates that nearly half of the students (46 percent) in the sample completed one or two honors courses during the 1986-87 school year. Another 30 percent completed three or four honors courses and 10 percent of the students completed no honors courses. An examination of the mean test scores in relation to the number of honors courses completed indicated that the more honors courses completed by the student, the higher the PSAT score. However, the number of honors courses completed by the student must be considered in light of the number of honors courses available at the student's grade level.

Table 16 presents the number of honors courses reported to be available at the student's grade level and the percent of districts reported to offer honors courses at the student's grade level. This table shows considerable variation in the number of honors courses offered at the student's grade level. For example, 8 percent of the districts were reported to offer no honors courses at the student's grade level while 11 percent offered nine or more. Staff in half of the districts reported offering between three and five honors courses.

TABLE 16

PERCENT OF DISTRICTS OFFERING HONORS COURSES
N=117 DISTRICTS

Number of Honors Courses Offered by District	Percent of Districts Offering Honors Courses
0 Courses	8
1 Course	7
2 Courses	10
3 Courses	15
4 Courses	16
5 Courses	19
6 Courses	5
7 Courses	5
8 Courses	4
9 or more Courses	11

It was noted earlier that a positive relationship was found to exist between the number of semesters of mathematics and social studies expected to be completed upon the student's high school graduation and the PSAT score. This pattern of increased preparation being associated with a higher test score was also found to exist for the number of honors courses reported to be completed by the student.

Table 15 showed that students who completed at least two honors courses during the 1986-87 school year also demonstrated the ability to achieve a higher combined PSAT score than students who completed one or fewer courses. The distribution of scores not only indicated that the completion of more honors courses was associated with a higher test score on the PSAT, but also indicated a change in the pattern of scores between those who completed one or no courses and students who completed two or more courses. That is, although there was little variation in scores among the students who completed from two to eight courses, there was a noticeable difference between the scores of these students and students who completed one or no courses. Students seem to have made a transition when three honors courses were completed, as evidenced by increased PSAT scores.

When district demographic variables regarding the combined PSAT score were considered earlier in Part II, a significant statistical relationship was found between district size and PSAT score. It was found that, for students in the sample, being enrolled in a G/T program in a larger district was correlated with a higher test score. Speculation was made that larger districts may meet the academic needs of G/T students in ways that some smaller districts cannot. Given the association found between number of honors courses completed and PSAT score just discussed, it was necessary to consider the number of honors courses available at the student's grade level in relation to size of district. Table 17 provides this information.

TABLE 17

NUMBER OF HONORS COURSES OFFERED AT THE STUDENT'S GRADE LEVEL
IN RELATION TO SIZE OF DISTRICT

Mean Number of Honors Courses Offered at Student's Grade Level	ADA Category	Number of Districts
6.81	25,000 or higher	17
6.52	10,000 to 24,999	23
4.94	5,000 to 9,999	12
5.29	3,000 to 4,999	37
3.71	1,000 to 2,999	17
1.58	less than 1,000	8

This table shows that, in general, the larger the size of the district, the more honors courses offered. Although nothing was surprising about this pattern, the number of honors courses offered may be a factor in that students enrolled in larger districts scored higher on the PSAT than students from smaller districts.

Another type of advanced courses available to G/T students are Advanced Placement Courses of the College Board. Nineteen percent of the students were reported to have completed one or more of these courses in 1986-87.

In order to determine if there was a significant statistical relationship between these three variables and PSAT score, a regression analysis was conducted. The number of honors courses offered at the student's grade level, the number of honors courses completed by the student in 1986-87, and the number of AP courses completed in 1986-87 were all entered into the regression equation with combined PSAT score being used as the outcome variable.

A significant statistical relationship was found between number of honors courses completed, number of AP courses completed, and PSAT score. That is, the more of either of these courses taken, the greater the likelihood that the student achieved a higher PSAT score. The squared multiple correlation for this regression analysis was .0542. Given the association found between number of honors courses completed and test score, it appeared that districts offering no advanced courses may need to offer these courses in order to afford the opportunity for students to increase their performance potential. At the same time, districts offering two or more courses per grade level at the high school level are probably providing adequate opportunity for G/T students and other students.

As the state moves toward mandating gifted/talented programs in 1990-91, the issue of providing quality programs becomes increasingly important. It was noted in Part I that for all operational programs, only about 30 percent offer a G/T program at grades 10, 11, or 12. In addition, 625 districts will be adding a program at the high school level by 1990-91. Given these considerations, it is recommended that the Agency pursue methods that would enable districts to offer advanced courses at

reasonable cost. An example of approaches that might be developed further include offering courses through Inter Act, Ti-In, or other distance learning systems.

This section has presented data related to the high school academic program for G/T students. Students' participation in extracurricular activities, students' perceptions, and teaching skills used in G/T programs are discussed next as well as their relationship to performance on the PSAT.

Gifted/Talented Students' Participation in Extracurricular Activities.

High school extracurricular activity programs have come under close scrutiny for a variety of reasons. The emphasis placed on raising academic standards by the educational reform movement has resulted in some states moving toward more stringent academic requirements for student participation in all extracurricular activities. In Texas, the "no pass-no play" rule requires students to pass every course during a six-week grading period in order to participate in extracurricular activities during the following six-week period. However, the law permits the campus principal to waive the suspension for a student who fails a recognized honors or advanced class.

Even though some states have moved toward more stringent academic requirements for student participation in extracurricular activities, the area of participation and its relationship to academic achievement is a neglected area of study. Although studies have supported the notion that participation is associated with higher academic performance, a number of issues remain unresolved. In a report from the U.S. Department of Education (U.S. Department of Education 1986, 1), the following statement describes some of these issues.

> Proponents of higher academic standards for high schools and colleges say linking extracurricular participation to academic performance will provide an incentive for students to pull up their grades. At the same time, others - including some parents and educators - say it's unfair, that such a policy would prevent students who do not have an academic bent from utilizing and developing the athletic, artistic, and other talents they bring to extracurricular activities. Besides, it may adversely affect student morale, they say. Others contend that while some activities (such as the school newspaper and debating) may offer good educational opportunities, the students who might benefit the most from such activities tend not to become involved in them.

Data regarding G/T students' participation in extracurricular activities were collected: (1) to describe the extracurricular participation of students in high school G/T programs and (2) to determine whether more involvement in extracurricular activities was associated with a higher score on the PSAT.

Table 18 summarizes the G/T students participation in extracurricular activities during the 1986-87 school year, their involvement in

leadership roles, and whether they received an award or recognition in each activity. Some of the findings were:

1. The two extracurricular activities G/T high school students were most likely to participate in were a foreign language activity and a religious activity or organization. Sixty percent of the students reported participating in each of these activities. Fifty-seven percent of the students reported participating in an academic honor society.

2. Sixty percent of the students reported working at a nonschool related part-time job.

3. Forty percent of the students reported participating in intramural, junior varsity, or community sports and 34 percent reported participating in varsity or amateur level sports.

Table 18

Gifted/Talented High School Students' Participation In Extracurricular Activities

N = 1140 Students

	Percent Participated	PERCENT OF PARTICIPANTS WHO: Received Award or Recognition	Held Office/ Leadership	Received Award + Held Leadership
Foreign language activity	60	13	6	7
Religious activity or organization	60	3	19	10
Academic honor society	57	6	16	6
Other activity not listed	55	6	5	12
Community or service activity (for example, volunteer work, neighborhood clean-up or patrol group, Scouting, 4-H, Key Club)	53	7	14	15
Science or mathematics activity (for example, math club, ecology or environmental group, science fair project)	50	22	7	10
Music: instrumental (for example, high school band, community orchestra, solo work)	43	25	6	25
Athletics: intramural, junior varsity, or community sports	40	12	7	11
Computer activity (for example, a user's group, computer club, learning to use a computer on your own)	38	3	4	5
Athletics: varsity or amateur-level sports	34	29	5	24
Journalism or literary activity (for example, creative writing, yearbook, school newspaper, community newspaper)	33	15	11	11
Government or political activity (for example, student government, honors council, working on a political campaign)	32	5	27	12
Theater activity (for example, community or school production, acting, stage crew)	30	12	5	15
Dance activity	28	9	5	8
School-spirit activity (for example, cheerleading, drill team)	25	11	11	16
Debating or public speaking	24	21	5	15
Art activity	23	23	2	5
Career-oriented activity (for example, Future Teachers of America, Future Farmers of America, Future Homemakers of America)	22	8	20	14
Music: vocal (for example, glee club, chorus, solo work)	21	14	8	16
Future Problem-Solving Program Activities	17	15	5	3
Special summer program for gifted/talented students (Governor's School, other special activity)	14	11	2	7
Ethnic or cross-cultural activity (for example, Black student organization, Hispanic club, international folk dancing)	14	10	12	7
Work: part-time job, not school related, 1-5 hours per week	13	—	—	—
Work: part-time job, not school related, 16-20 hours per week	12	—	—	—
Work: part-time job, not school related, 6-10 hours per week	10	—	—	—
Olympics of the Mind	10	20	4	5
Academic Decathlon	10	26	4	7
Work: part-time job, not school related, 11-15 hours per week	8	—	—	—
Work: part-time job, not school related, 21-25 hours per week	8	—	—	—
Work: part-time job, not school related, 26-30 hours per week	5	—	—	—
Foreign exchange or study abroad program	4	9	9	2
Work: part-time job, not school related, more than 35 hours per week	4	—	—	—
Work: cooperative work program	4	13	8	8
Junior Reserve Officers Training Corps	4	27	10	51
Work: part-time job, not school related, 31-35 hours per week	3	—	—	—
Activities related to social issues such as nuclear freeze, the environment, etc.	<1	14	5	3

In order to determine if there was a clustering of certain activities in which the G/T students participated, a factor analysis was conducted.* (For complete results of all factor analyses conducted for the case study, see Appendix V.) This analysis indicated that almost all extracurricular activities clustered together on the first factor. This simply means that these activities are represented on the underlying construct of extracurricular participation. However, there were some other interesting clustering of activities. These factors were not as powerful as the first factor, but certain activities did tend to occur together. For example, in factor two, students who participated in Olympics of the Mind and/or Academic Decathlon were less likely to participate in a dance activity or school-spirit activity. This could be seen because of the difference in signs of the column labeled "Factor 2". In factor three, participation in athletic activities occurred together in opposition to participation in instrumental music activities.

In order to determine if there was a relationship between students' participation in extracurricular activities and PSAT score, a regression analysis was conducted. There was no statistically significant relationship between degree of participation and PSAT performance. Other studies with students having a wider range of performance have shown a positive relationship between number of extracurricular activities and student achievement. These results may be the result of the quite limited range of G/T students' PSAT scores.

Participation in extracurricular activities cannot guarantee improved performance as a student. However, it appears that extracurricular activities are attracting many bright, high performing students.

Students' Perceptions.

Two measures of students' perceptions were used in the case study. The first was the extent to which the student saw the program as differentiated for the gifted and the second was the extent to which the student indicated a need for structure in the learning environment.

A large percentage of the students indicated positive perceptions of the program in relation to their regular classes. Table 19 presents the students' responses to 12 questions about their classes, which include honors classes, Advanced Placement of the College Board classes, and special classes for G/T students.

All 12 items were designed to measure the extent to which students were receiving the type of instruction generally associated with a well developed G/T program in high school. An examination of Table 19 indicates that a similar pattern is found across all 12 items. For example, question 12 asked, "Did you consider the G/T program to be intellectually challenging?" Seventy-one percent of the students

* Factor analysis is a method for determining the number and nature of the underlying variables among larger number of variables. For a discussion of factor analysis, see Kerlinger (1986).

TABLE 19
STUDENTS' PERCEPTIONS OF THE PROGRAM
N=1140 STUDENTS

TO WHAT EXTENT:	PERCENT Not at All	Not Much	Some-times	Often	Very Often
1. has being in the G/T program encouraged you to do independent research?	5	12	35	28	20
2. has being in the G/T program encouraged you to use primary and secondary sources to do research?	2	9	27	36	26
3. has being in the G/T program provided opportunities for doing work not usually done by high school students?	3	7	20	32	38
4. did the teachers in your G/T class ask questions for which there really wasn't a right or correct answer?	4	6	22	31	37
5. did the teachers in the gifted program do less telling and more encouraging the class to find out for themselves?	1	6	30	38	25
6. did the teachers in the G/T program keep asking for more ideas?	1	4	22	40	33
7. did the teachers in the G/T program encourage the class to go beyond the facts and get into ideas and theories?	1	6	23	37	33
8. did the teachers in the G/T program ask you to take guesses or to respond to questions like "What do you think would happen if...?	2	10	28	34	26
9. did the teachers in the G/T program seem to encourage students to express really unusual ideas that might seem a little bit crazy?	5	14	31	29	21
10. did the teachers in the G/T program encourage you to identify problems or puzzles that are really hard to solve?	3	10	29	35	23
11. did teachers in the G/T program seem less interested in events themselves than in the meaning behind the events?	4	13	41	28	14
12. did you consider the G/T program to be intellectually challenging?	3	5	21	36	35

responded "often" or "very often", 21 percent answered "sometimes", and 8 percent answered "not much", or "not at all".

When a factor analysis was conducted on these items, it was found that all 12 items were measuring essentially the same underlying construct, the extent to which the program was differentiated. A second, though less powerful, cluster of items indicates that students who found the program to be intellectually challenging and were able to do work not usually done in the regular program were less likely to perceive that teachers encouraged them to be involved in activities often associated with a differentiated program such as being encouraged to go beyond the facts and get into ideas and theories. This may suggest that students who are most likely to benefit from independent studies do not perceive their teachers as providing adequate opportunity for these types of activities.

The second measure of the students' perceptions was designed to measure the student's need for structure. Studies of the way in which G/T students learn have indicated that they are self-directed and internally controlled. The scale was designed to measure two dimensions: need for structure and source of structure.

The first dimension, need for structure, is an internal state. For some individuals, there is an inherent need for structure in the learning environment. If structure is not provided, the individual will impose a structure. If the structure that is provided does not match the need, the individual will restructure the environment to fit the need. Learners are thought to develop through unsocialized, dependent, and independent stages successively reflecting less need for structure and greater self expression and autonomy. Individuals who are in the final stage of development would function best in an environment free from structure.

The second dimension, the source of structure, refers to the individual who is providing direction to the learning: teacher, peers, significant others, or the individual engaged in the learning. Some individuals require that the structure in the learning environment should come from an outside source, such as the teacher. For others, the source of structure is the self. Individuals who desire that structure be imposed from the outside would probably prefer teacher directed activities, while those who structure their own learning would be more comfortable with independent study.

Table 20 shows students' responses to items on the need for structure scale. For items 1-7, a response of "strongly agree" or "agree" indicated a low need for structure. For example, 85 percent of the students agreed or strongly agreed with the statement, "I set my own goals without prodding." However, items 8-14 are worded such that a response of "disagree" or "strongly disagree" represented a low need for structure. The majority of students (80 percent) who disagreed or strongly disagreed with the statement, "I like a class that follows a textbook very closely," would be likely to also prefer a low degree of structure.

TABLE 20

STUDENTS' PERCEPTIONS OF NEED FOR STRUCTURE
N=1140 STUDENTS

	PERCENT			
	Strongly Agree	Agree	Disagree	Strongly Disagree
1. When I borrow someone else's notes for a class that I've missed, I revise them to fit my own style of note taking.	24	50	21	5
2. I set my own goals without prodding.	31	54	12	3
3. I like to be able to do assignments my own way.	35	49	15	<1
4. When I have an assignment, I organize the things that I need carefully before I start.	17	49	28	6
5. I learn best when I'm allowed to follow my own schedule.	30	44	24	2
6. I need very little help from my teacher in planning my work.	14	53	31	2
7. I am able to learn on my own.	50	44	5	<1
8. I like a class that follows a textbook very closely.	2	18	51	29
9. I complete assignments only when the teacher tells me they are due at a specific time.	11	33	44	12
10. When a teacher gives me an assignment, I like to be shown examples of how it should look when I'm finished.	35	46	16	3
11. I take notes exactly the way the teacher organizes the lecture.	9	38	41	12
12. I like my class activities arranged in an order that doesn't change from day to day.	7	21	45	27
13. I like the teacher to tell me exactly what to do in class.	4	22	52	22
14. I would rather have someone tell me the solution to a difficult problem than work it out myself.	2	13	56	29

Overall, responses to these items showed that a majority of G/T students preferred an unstructured learning environment and were independent learners. That is, a majority of students agreed or strongly agreed with items 1-7 and disagreed or strongly disagreed with items 8-14. Approximately 15 to 30 percent of the students appeared to prefer a structured learning environment and would be characterized as being in the unsocialized or dependent stages of development.

One exception to these patterns was found in the responses to the item, "When a teacher gives me an assignment, I like to be shown examples of how it should look when I'm finished." Even though disagreeing or strongly disagreeing with this statement indicated a lower need for structure, 81 percent of the students responded they "agreed" or "strongly agreed." This suggested that, regardless of stage of development, most G/T students preferred to have some idea of what expectations teachers have for their work. At the same time, once expectations were provided, they would rather be given the freedom to pursue ideas on their own.

When a factor analysis was conducted on the need for structure scale, two underlying constructs were found to be measured by the scale. However, the items that occurred together did not cluster on the dimensions of need for structure and source of structure. From this analysis, no logical explanation was discernible from the way the items clustered. Further research in the area of learning styles, of which need for structure is one theoretical construct, may better identify the underlying constructs.

In order to determine if there was a relationship between students' perceptions and PSAT score, a regression analysis was conducted. Scoring of questions 7-14 was adjusted so that the direction of the need for structure was maintained. In this way, a lower total Likert score represented a lower need for structure on all items. The squared multiple correlation for this regression analysis was .0099.

Findings from this analysis indicated that there was no relationship between students' perceptions of the extent to which the program is differentiated and PSAT score. However, a statistically significant negative relationship was found between students' need for structure and PSAT score. That is, students who preferred less structure tended to score higher than those who preferred more structure in the learning environment. These students characteristically structure their own learning and could be thought of as having reached the developmental stage of independent learning.

This finding was consistent with other research conducted in the area of gifted/talented education. From a program development standpoint, it suggested that G/T programs should continue to offer activities that encourage and stimulate students to do independent work in a relatively unstructured environment. However, educators must be mindful that not all G/T students have reached the stage of independent learning. As with other stages of adolescent development, development in the area of need for structure is asynchronous. That is, a student may have reached the stage of independent learning in one area, but not in another.

Teaching Skills Used in the Gifted/Talented Program.

Items on the teacher questionnaire included questions related to teaching assignment, inservice training, and graduate courses completed in G/T education. However, the focus was on the types of teaching skills that are involved in guiding G/T students through individual and small group investigative and creative experiences (Renzulli 1985).

Of the 518 teachers of the gifted who responded to the survey, 15 percent reported that their only teaching assignment was teaching gifted/talented. Sixty-one percent reported teaching in the program for four years or less. Seventeen percent reported five to six years and 22 percent reported seven or more years.

When asked, "How many hours of gifted/talented related inservice training did you receive during the past year?", 70 percent reported receiving 0-10 hours, 21 percent reported receiving 11-30 hours, and nine percent reported receiving 31 or more hours of inservice training.

Teachers were also asked, "How many college/graduate courses in gifted/talented education have you completed?" Sixty-four percent reported no courses, 27 percent responded one to three, and 9 percent responded four or more. This reported lack of training is related, in part, to the unavailability of courses in G/T education at the graduate level.

Table 21 presents the percentage of teachers' responses to a Likert scale for nine items. While there was some variation, approximately 70 percent of the teachers responded that they used each skill often or very often in working with G/T students. Another 20 percent reported using these skills sometimes, and nearly 10 percent used them not much or not at all. When a factor analysis was conducted, it was found that all items were included in a single unitary factor covering teaching skills.

In order to determine if there was a relationship between teaching skills used in the program and PSAT score, a regression analysis was conducted. No statistically significant relationship was found between any of the teaching skills included on the scale and PSAT score. This is not surprising since students, in some cases, had taken the PSAT before enrollment in the G/T class of the teacher responding to the items presented in the table.

TABLE 21

TEACHING SKILLS USED IN THE PROGRAM
N=520 TEACHERS

TO WHAT EXTENT DO YOU APPLY THESE SKILLS WITH G/T STUDENTS?	PERCENT Not at All	Not Much	Some-times	Often	Very Often
1. Analysis of individual interests, abilities, and learning styles.	<1	6	26	44	23
2. Organization and implementation of specific activities designed to stimulate a wide variety of new interests among students.	0	3	19	45	33
3. Guidance in the processes of problem finding and problem focusing.	1	5	18	42	34
4. Systematic strategies for making appropriate modifications in the regular curriculum, which include elimination of skills already mastered, the ability to work at one's own pace, and appropriate subject matter acceleration.	1	6	15	39	39
5. Assistance in the identification of methodological (research skills) resource materials.	3	7	23	43	24
6. Assistance in the identification and appropriate use of advanced level and diverse reference materials and resource persons.	5	9	23	40	23
7. Procedures for providing students with appropriate feedback and guidance in the revision of creative products and the general escalation of early drafts of scientific, literacy, or artistic endeavors.	2	10	17	42	29
8. Assistance in the exploration of various formats and modes of communi-cation for the production of student endeavors.	4	6	25	43	22
9. Assistance in the identification of appropriate outlets and audiences for student work.	3	13	36	34	14

Summary

Part II of this report provided a profile of high school gifted/talented programs and examined the relationship between a number of district, student, and program variables and their relationship to combined PSAT score. It was found that students in the sample scored extremely well on both the verbal and mathematics portions of the PSAT.

District demographic data indicated that the responding districts were representative of the districts with high school G/T programs in terms of geographic region, district size, ethnic composition, and district wealth. Since students in the sample were randomly selected within these districts, it can be reasonably assumed that the student sample was representative of high school G/T students.

From these data, two types of analyses were possible. First, a profile of Texas G/T programs and students was obtained. Descriptive statistics indicated the type of student most likely to be enrolled in the program in terms of sex, ethnicity, family socioeconomic status, and the number of years in the program. The amount of time per week the student was engaged in G/T classes by program prototype was also presented.

Data describing the components of the G/T program indicate that there are generally two categories of high school G/T programs: one in which the curriculum is differentiated and identification procedures are in place and one in which both the elements are less likely to be implemented. Considerable range was found in the type of program delivery, but few students were found to receive more than 20 hours per week of instruction in G/T classes.

The level of participation in extracurricular activities and nonschool related work was high. Students were found to be most likely to participate in foreign language activities and religious activities. Sixty percent reported working at a nonschool related part-time job.

Two measures of the students' perceptions were used. Responses to the first instrument indicated that the large majority of students perceived that they were receiving the type of instruction generally associated with a well-developed high school G/T program.

The second measure of students' perceptions was designed to measure the students' need for structure. Overall, responses to this instrument showed that a majority of students preferred an unstructured environment. However, some G/T students were found to need a more structured environment.

Data collected from a sample of teachers of the gifted indicated that more than 60 percent had received no graduate training in G/T education. Results from an instrument designed to determine the extent to which these teachers used a specific set of skills in their classes showed that 70 percent of the teachers reported using these skills often or very often with their students.

The second type of analysis involved examining the interrelationships among a number of district, program, and student variables and combined PSAT score. A number of these variables were found to correlate with a higher PSAT score. Results from these analyses were based upon regression analyses and should not be interpreted as being causal. Statistically significant findings from these analyses are summarized below.

The study found that students in districts with a larger percent minority enrollment were not as likely to attain a high PSAT score as were other students. Students in larger districts were more likely to perform well than were students in smaller districts. In terms of student variables, combined family income and father's education level were found to be associated with a higher test score. These findings were generally consistent with other studies related to standardized achievement test scores. An important finding in this study was that participation in the G/T program for a longer period of time was associated with a higher test score.

When the high school academic program was considered, it was found that students in programs emphasizing general intellectual ability and creative and productive thinking were more likely to score higher than students in programs emphasizing specific subject matter aptitude or leadership. Class size was also found to be a factor in how well students performed. Students in larger classes were more likely to obtain a higher score, but this must be considered in light of the fact that 73 percent of G/T classes were reported to have less than 23 students.

The number of semesters of mathematics and social studies completed was also associated with a higher test score. These findings may have implications for increasing graduation requirements, but they must be balanced against considerations related to the student dropout rate.

Also related to the academic program was the finding that completion of a number of advanced courses was positively related to a higher PSAT score. These findings suggested that districts offering no advanced courses may need to offer one or more advanced courses per grade level in order to provide opportunities for students to increase their performance potential. Since smaller districts may not have resources available to offer advanced courses, it was recommended that the Agency pursue methods for offering advanced courses that could be made available to districts at a reasonable cost, such as distance learning systems.

Contrary to prior studies, regression analysis indicated that high rates of participation in extracurricular activities were not associated with high academic performance. However, other studies have used different measures, such as grade point average. The constrained range of G/T students' scores on the PSAT posed a problem for the analysis.

Students' perceptions of the extent to which the program was differentiated were not found to be associated with a higher test score.

However, students who preferred less structure in their learning environment were found to score higher on the PSAT than other students.

DEVELOPMENTAL PROGRAMS

Beginning in 1985-86, school districts received funds to initiate G/T programs for the following school year. These programs were termed developmental programs, while programs serving students were called operational programs (discussed earlier in this report). Some districts receive funding for both developmental and operational programs. For example, a district might serve students in grades 1-5 while developing a program in grades 6-8 for implementation the following fall.

In 1986-87, 114 districts received a total of $351,904 of state funds for developmental programs. Forty-nine of these districts also received funds for operational programs. The G/T allotment for developmental programs was based upon a projected enrollment of 5,424 students.

In the spring of 1987, a data collection instrument was sent to all 114 developmental programs; 113 (99 percent) were returned and used to tabulate the data presented in the following sections. Data were collected in the areas of program development, enrollment, program organization, and teacher and administrator training.

Program Development

The questions asked in the area of program development were related to student identification procedures, student selection, and planning.

When staff in districts were asked, "Did the district develop student identification procedures for the gifted/talented program before the completion of the spring ADA count?," staff in 92 percent of the programs responded "yes". Although student identification procedures had been developed by a large majority of developmental programs, staff in only 46 percent of the programs reported that students had been selected for the fall of 1987 by the completion of the spring ADA count. It was reported that students were not identified before the spring ADA count because achievement test and ability test scores were not yet available. Staff in these districts anticipated completing the selection process during the summer of 1987. When asked, "Did the district accomplish the planning steps outlined in The Texas State Plan and Guidelines for the Education of the Gifted/Talented as proposed in the application?," staff in 92 percent of the districts reported that these activities had been completed. More than 80 percent reported that the district's long-range plan for the education of the gifted/talented had been completed.

Enrollment

Staff in districts with developmental programs were asked to report, by grade level and ethnicity, the number of students identified in the spring of 1987 that are projected to be served in operational programs during the 1987-88 school year. Table 22 presents the responses to this question.

TABLE 22

NUMBER OF STUDENTS TO BE SERVED IN THE NEW OR EXPANDED OPERATIONAL PROGRAMS IN 1987-88 BY GRADE LEVEL AND ETHNICITY (IN ADDITION TO EXISTING PROGRAMS) N-113 DISTRICTS

Grade Level	American Indian or Alaskan Native	Asian or Pacific Islander	Black, not Hispanic	Hispanic	White, not Hispanic
1	1	48	72	147	993
2	5	70	92	174	1,303
3	2	73	96	181	1,115
4	7	81	98	205	1,306
5	2	89	93	225	1,206
6	1	91	81	185	1,150
7	3	86	81	92	962
8	0	23	28	46	539
9	0	6	12	132	409
10	2	13	14	92	291
11	0	5	12	86	296
12	2	7	3	66	288
Total	25 (<1%)	592 (5%)	682 (5%)	1,631 (13%)	9,858 (77%)

State funding was provided based upon 5,424 students, and staff in developmental programs reported they will serve 12,788 students in the fall of 1987. It is very common for districts to serve more students than are allowed for state fund allocation determinations. All districts that receive state funding supplement the allotment with local resources and external funding, when available.

Table 22 indicates a 12 percent discrepancy between the percentage of minority students in districts with developmental programs (35) and the percentage of minority students identified in developmental programs to be served in the fall of 1987 (23). This discrepancy is 2 percent larger than was reported to exist in operational programs. The underrepresentation is not true in all districts, however, with many districts making special efforts to obtain proportional representation.

Program Organization

As with the operational programs, developmental programs can be classified in terms of type of student to be served. Table 23 shows the number of students to be served categorized by grade level and ability area. Students may have been identified to be served in more than one area of program emphasis. As was the case with operational programs, staff in developmental programs reported that more students were identified to be served in programs that address specific subject matter aptitude than were identified for the other three areas. During the 1986-87 school year, 8,772 students were reported to be identified to be served in specific subject matter aptitude; 5,243 in general intellectual ability; 1,916 in creative and productive thinking; and 853 in leadership ability.

TABLE 23

NUMBER OF STUDENTS TO BE SERVED IN THE NEW OR EXPANDED OPERATIONAL PROGRAMS BY GRADE LEVEL AND ABILITY AREA*
(IN ADDITION TO EXISTING PROGRAMS)
N=113 DISTRICTS**

Grade Level	AREA OF ABILITY			
	Specific Subject Matter Aptitude	General Intellectual Ability	Creative and Productive Thinking	Leadership Ability
1	838	446	153	61
2	919	538	386	100
3	1,070	474	226	126
4	1,258	604	304	138
5	1,141	699	323	151
6	1,196	474	159	81
7	1,082	387	120	79
8	530	246	96	54
9	229	440	38	17
10	180	325	28	14
11	156	319	34	18
12	173	291	49	14
Total	8,772	5,243	1,916	853

* Table 23 represents a duplicated count. Students may be served in more than one area of program emphasis.

** The total number of districts responding was 113. The actual number of districts may vary by grade level.

Teacher and Administrator Training

An important aspect of developing a G/T program is providing staff training for teachers and administrators. Therefore, a number of questions related to teacher and administrator training were included in the data collection instrument for developmental programs.

Table 24 represents the percentage of developmental programs offering inservice training for teachers and administrators shown by the number of hours provided. Staff in 61 percent of developmental programs reported offering 30 hours or less of teacher training, and 83 percent reported offering 30 hours or less of training for administrators.

TABLE 24

NUMBER OF HOURS OF INSERVICE TRAINING PROVIDED
FOR TEACHERS AND ADMINISTRATORS
N=113 DISTRICTS

	(Percent Programs)	
Number of Hours	Teacher Training	Administrator Training
0-10	38	60
11-30	23	23
31-50	17	10
51-80	6	2
81+	16	5

The question was also asked, "Did teachers or administrators in your district receive gifted/talented training other than district or cooperative sponsored inservice training during the 1986-87 school year?" Staff in 72 percent of the districts responded "yes" to this question. Staff in 66 districts reported that staff members attended conferences, and 21 indicated that staff members enrolled in college courses.

Table 25 represents, by topic and by audience, the percentage of developmental programs offering inservice training. The two topics most frequently reported to be offered were "Needs and Characteristics of Gifted/Talented Students" and "Identifying Gifted/Talented Students."

While some programs seem to have invested considerable effort in providing inservice training for teachers and administrators, others appear to have been unable to adequately prepare staff for serving students in the fall of 1987. This lack of available training should be somewhat alleviated during the 1987-88 school year since the Division of Gifted/Talented Education will sponsor some training in cooperation with Regional Education Service Centers.

TABLE 25

INSERVICE TRAINING OFFERED IN
DEVELOPMENTAL PROGRAMS BY AUDIENCE
N=113 DISTRICTS

Inservice Topic	(Percent Programs) Teachers	Administrators
1. Needs and Characteristics of Gifted/Talented Students	75	73
2. Identifying Gifted/Talented Students	71	75
3. Curriculum Development for the Gifted/Talented	62	58
4. Teaching Strategies for the Gifted/Talented	66	-
5. Staff Development Needs of Gifted/Talented Teachers	-	53
6. Parent and Community Involvement in Gifted/Talented Programs	-	48
7. Evaluation of Gifted/Talented Programs	-	37

Summary

This section has summarized data from developmental programs related to program development, enrollment, program organization, and teacher and administrator training. Data collection instruments were returned for 113 of 114 programs. Of these, 49 programs also received state funds for an operational program.

In terms of program development, staff in more than 90 percent of the programs reported that student identification procedures had been developed and that planning steps proposed in the district's application had been completed. While staff in less than half of the programs reported that students had been identified by the end of the spring ADA count, the fact that achievement test and ability test scores were not yet available until summer largely explains this situation.

Enrollment data indicated that 12,788 students were projected to be served in the fall of 1987. As with operational programs, a discrepancy was found between the percentage of minority students in districts with developmental programs (35) and the percentage of minority students identified in developmental programs to be served in the fall of 1987 (23).

Staff in developmental programs reported that, as was the case with operational programs, more students were identified to be served in

programs that address specific subject matter aptitude. The fewest number of students were reported to be identified to be served in programs emphasizing leadership ability.

While some programs have invested considerable effort in providing inservice training for teachers and administrators, staff in 61 percent of the programs reported offering 30 hours or less of teacher training and 83 percent reported offering 30 hours or less of training for administrators.

SPECIAL PROJECTS

The Division of Gifted/Talented Education sponsored or provided support for a number of special statewide projects in 1986-87 that involved gifted/talented students and teachers. These included institutes on the basic principles of gifted education, Institutes for Teachers of Young Disadvantaged Gifted Students, the Texas Governor's School, the Texas Future Problem Solving Program, and the Odyssey of the Mind Program.

In October 1986, an institute on the basic principles of gifted education was held in Austin for staff members of districts that were developing G/T programs. Later in the year, follow-up sessions were conducted at four education service center sites. During the summer, training was offered at eight sites for staff members of both developmental and operational programs. The evaluation report for this summer training is available in a separate report from the Division of Program Evaluation.

Six institutes for teachers of young disadvantaged gifted students were held during the summer of 1987. The institutes, funded through the Education Consolidation and Improvement Act (ECIA), Chapter II discretionary funds, involved a total of 140 teachers and 511 students. The teacher trainees received a theoretical foundation in gifted/talented education, with an emphasis on the disadvantaged gifted child. A practicum or laboratory school, held in conjunction with the institutes, provided the trainees an opportunity to develop skills in identifying and nurturing the abilities of young children whose gifts are often overlooked. Sponsors of the institutes were: Lubbock Independent School District and Texas Tech University; United Independent School District and Laredo State University; Trinity University and the Bexar County Consortium of Districts; Region VIII Education Service Center, East Texas State University-Texarkana, and Harts Bluff Independent School District; The University of Texas at Austin and Austin Independent School District; and Southwest Texas State University and Hays Consolidated, Seguin, and Bastrop Independent School Districts.

The 1987 Texas Governor's School was a summer program designed as a model for meeting the needs of secondary school gifted/talented students. Conducted by the Division of Gifted/Talented Education at The University of Texas at Austin, the program served 151 eleventh grade students in a four-week residential program from June 21 - July 18, 1987. Students were selected to represent all regions of the state. Criteria for selection included achievement test scores, community activities, teacher and counselor recommendations, and student essays. Administrative staff of the school included the director, an assistant director, a counselor, 23 teachers, and 15 resident counselors.

The Governor's School was supported by allocations of $251,125 in state set-aside funds and $70,000 in federal Chapter II discretionary funds. Additional in-kind support was provided by The University of Texas at Austin.

Curriculum for the Governor's School was designed to provide in-depth instruction in content areas not generally offered in regular high school programs. Students chose a content area to study such as Latin American Studies, The American Constitution, International Economics, or Urban Planning and Development. They also chose a class designed to enhance critical thinking and creative process skills such as Advanced Computers, Compository Writing, Journalism, or the Language and Culture of Russia. The final program evaluation report for the Texas Governor's School is available from the Division of Gifted/Talented Education.

The Texas Future Problem Solving Program has been conducted under the direction of the Agency for six years by the Austin Independent School District. Future Problem Solving is a statewide program that trains teams of G/T students in grades 4-12 as well as their teacher/coaches in the creative problem solving process through the study of futuristic problems. Outstanding teams then are invited to participate in a state bowl in Austin. Winners in this bowl go on to the International Bowl. The cost to the state for the 1986-87 Future Problem Solving Program was approximately $132,580 and was paid for with discretionary funds for special student programs.

The Odyssey of the Mind Program (OM), conducted by the Region X Education Service Center, received state funding for the first time during the 1986-87 school year. This program is both a year-long curriculum project and a program of state and international team competition that fosters creativity in gifted students who will create solutions to tomorrow's problems. Winners of the state competition are selected and represent Texas at the national competition. Approximately $37,750 of state set-aside funds were allocated for the OM Program.

Summary

This section has provided a brief overview of five special projects sponsored by the Division of Gifted/Talented Education. These included regional staff development workshops, the Texas Governor's School, the Texas Future Problem Solving Program, the Odyssey of the Mind Program, and Institutes for Teachers of Young Disadvantaged Students.

Support for these programs was provided primarily by state gifted/talented set-aside funds and federal Chapter II discretionary funds. Evaluation reports for the regional staff development workshops and the Texas Governor's School are available from the Agency.

SURVEY OF DISTRICTS WITHOUT A STATE-APPROVED GIFTED/TALENTED PROGRAM

Of the 1,061 districts statewide, 625 did not apply for state funding for the 1986-87 school year. These 625 districts represent 16 percent of the total average daily attendance (ADA) statewide. A short, one page survey was sent to these districts in the spring of 1987 for two reasons. First, no data were available regarding the number of districts offering a G/T program supported only by local and/or other funds. Second, the Agency needed to know the reasons these districts were not applying for state funding of G/T programs. Five hundred seventy-four (92 percent) of the 625 surveys were returned to the Agency.

When asked, "Does your district offer a program for the gifted/talented?" staff in 107 districts (19 percent) reported having a program. Of these, 40 percent described their program as meeting the standards of The Texas State Plan and Guidelines for the Education of the Gifted/Talented. Twenty-nine percent reported their program does not meet these standards and 31 percent responded "don't know."

The 107 districts offering a G/T program reported serving a total of 8,891 students. Sixteen percent were served in the primary grades, 29 percent in the intermediate years, 31 percent in middle/junior high, and 24 percent in high school.

Staff in districts were also asked to select the most important reason for not applying for state funds. Lack of adequate supplementary state funding and too many competing priorities were the most frequently reported reasons these districts have not applied for state funding. These responses are summarized in Table 26.

TABLE 26

REASONS FOR NOT APPLYING FOR STATE FUNDS
N=574 DISTRICTS

Reason For Not Applying		Percent of Districts
1.	Lack of Adequate Supplementary Funding by the State	38
2.	Too Many Competing Priorities	32
3.	Othe	13
4.	Too Much Paperwork	10
5.	Lack of Trained Staff	7

When asked, "What level of funding would have to be made available before your district would apply for gifted/talented funds from the state?", 68 percent responded, "greater than .12 x the adjusted basic allotment." Responses to this question are presented in Table 27.

TABLE 27

LEVEL OF FUNDING AVAILABLE BEFORE DISTRICTS
WOULD APPLY FOR STATE FUNDS
N=574 DISTRICTS

Level of Funding		Percent of Districts
1.	Greater than .12 x Adjusted Basic Allotment	68
2.	.12 x Adjusted Basic Allotment	23
3.	.047 x Adjusted Basic Allotment	5
4.	.043 x Adjusted Basic Allotment	<1
5.	.039 x Adjusted Basic Allotment	<1

Some of the districts currently without a state-approved program will apply in 1987-88 and 1988-89. However, by the 1990-91 school year, all 1,061 districts will be required to offer a G/T program at all grade levels (Texas Education Code, §21.652 - Appendix I). School districts are scheduled to receive a G/T allotment equal to the district's basic allotment multiplied by .12 for the 1990-91 school year and .12 for each year thereafter, unless otherwise specified by rider in appropriations legislation.

Considering the amount of resources required to implement a G/T program at all grade levels, one possibility of assisting districts is to offer courses through Inter Act, Ti-In, or other distance learning systems. Staff in 41 percent of the districts responded they would apply for state funding of G/T programs if distance learning systems provided courses for G/T students.

Summary

Nineteen percent of the districts without a state-approved G/T program offered a G/T program in 1986-87 that was supported entirely by local and/or other resources. A total of 8,891 students were reported to be served in these programs, bringing the reported total number of students served statewide to 152,430.

The two most frequently reported reasons for not applying for state G/T funds were lack of adequate supplementary funding and too many competing priorities. Data collected from staff in these districts indicate that courses offered through distance learning systems may provide a viable means of providing services for the gifted/talented as the state moves toward a mandated G/T program at all grade levels.

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APPENDICES

APPENDIX I

State Statutes for Gifted/Talented Education

SUBCHAPTER Q. EDUCATIONAL PROGRAMS
FOR GIFTED AND TALENTED STUDENTS

Texas Education Code, §21.651. Definition.

As used in this subchapter, "gifted and talented student" means a student who, by virtue of outstanding mental abilities, is capable of high performance. The student may demonstrate, singly or in combination, above-average achievement or potential in such areas as general intellectual ability, specific subject matter aptitude, ability in creative and productive thinking, and leadership ability. The phrase does not include students who demonstrate above-average achievement or potential in areas relating to physical abilities.

Texas Education Code, §21.652. Establishment.

Each school district shall adopt a process for identifying gifted and talented students in the school district's population and, not later than the 1990-91 school year, shall establish a program for those students in each grade level. A school district may establish a cooperative program with one or more other districts.

Texas Education Code, §21.653. Student Participants.

Students shall be identified as gifted and talented for a program under this subchapter through the use of criteria established by the State Board of Education.

Texas Education Code, §21.654. Program Approval.

A school district or a combination of school districts shall submit the program for approval to the Central Education Agency in accordance with rules adopted by the State Board of Education. The agency shall approve any program that satisfies requirements for a program established by board rule. The requirements established by the Board must consider unique local needs of school districts and must allow school districts to develop and implement alternatives that provide a high level of services but are appropriate to local needs.

Texas Education Code, §21.655. State Plan, Assistance.

The State Board of Education shall develop and periodically update a state plan for the education of the gifted and talented to guide local education agencies in establishing and improving programs for students identified as gifted and talented. The Central Education Agency shall assist local education agencies in the development of planned programs which are appropriately designed to meet the special needs of gifted and talented students.

Texas Education Code, §16.159. Gifted and Talented Student Allotment.

(a) For each student a school district serves in a Central Education Agency approved program for gifted and talented students under Subchapter Q, Chapter 21, of this code or, in the case of a district that is developing a program in accordance with standards established by the commissioner of education, for each student the district identifies as gifted and talented under State Board of Education criteria, a district is entitled to an annual allotment equal to the district's adjusted basic allotment as determined under Section 16.102 or Section 16.103 of this code, as applicable, multiplied by:

(1) .032 for the 1985-1986 school year;
(2) .035 for the 1986-1987 school year;
(3) .039 for the 1987-1988 school year;
(4) .043 for the 1988-1989 school year;
(5) .047 for the 1989-1990 school year;
(6) .12 for the 1990-1991 school year and for each school year thereafter unless otherwise specified by rider in the appropriations bill.

(b) Funds allocated under this section, other than the amount that represents the program's share of general administrative costs, must be used in providing approved programs for gifted and talented students under subchapter Q, Chapter 21, of this code or, in the case of a district that has not yet established a program, in developing programs for gifted and talented students. Each district must account for the expenditure of state funds as provided by rule of the State Board of Education. If by the end of the 12th month after receiving an allotment for developing a program, a district has failed to implement an approved program, the district must refund the amount of the allotment to the agency within 30 days.

(c) Not more than five percent of a district's students in average daily attendance are eligible for funding under this section.

(d) If the amount of state funds for which school districts are eligible under this section exceeds the amount of state funds appropriated in any year for the programs, the commissioner of education shall reduce each district's allotment on a pro rate basis.

(e) If the total amount of funds allotted under this section before a date set by rule of the State Board of Education is less than the total amount appropriated for a school year, the commissioner shall distribute the remainder proportionately to the districts that have received an allotment, and no other districts are eligible for an allotment for that school year.

(f) After each district has received allotted funds for this program, the State Board of Education may use up to $500,000 of the funds allocated under this section for programs such as Future Problem Solving, Olympics of the Mind, and Academic Decathlon, as long as these funds are used to train personnel and provide program services. To be eligible for funding under this section, a program must be determined by

the State Board of Education to provide services that are effective and consistent with the state plan for gifted and talented education.

APPENDIX II

Categories of District Level Demographic Data

1. Geographic Region Groups

   a. Super Region 1 - Education Service Center Regions I, II, III, and XX

   b. Super Region 2 - Education Service Center Regions IV, V, VI, and VII

   c. Super Region 3 - Education Service Center Regions VIII, IX, X, and XI

   d. Super Region 4 - Education Service Center Regions XII, XIII, XIV, and XV

   e. Super Region 5 - Education Service Center Regions XVI, XVII, XVIII, and XIX

2. Size of District (Refined Average Daily Attendance Groups)

   a. 25,000 or greater ADA
   b. 10,000 - 24,999 ADA
   c. 5,000 - 9,999 ADA
   d. 3,000 - 4,999 ADA
   e. 1,000 - 2,999 ADA
   f. less than 1,000 ADA

3. Ethnic Composition (Percent Minority Groups)

   a. less than 13.5 percent
   b. 13.5 percent - 37.4 percent
   c. greater than or equal to 37.5 percent

4. District Wealth Per Student Groups

   a. less than $135,042
   b. $135,042 - $246,052
   c. greater than $246,052

APPENDIX III

PERCENT OF PROGRAMS OFFERING PROTOTYPE BY CONTACT TIME
ELEMENTARY (K-5)
N=363 DISTRICTS*

Program Prototype	(Percent of Programs) Number of Hours Per Week 1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40
1. Cluster grouping within regular class	46	17	10	5	4	6	8	4
2. Resource room and teacher	71	25	2	0	0	0	0	2
3. Itinerant teacher	91	9	0	0	0	0	0	0
4. Multi-age or ungraded class	55	12	12	9	5	0	0	7
5. Special class	46	18	13	4	3	7	4	5
6. Seminar	50	0	17	17	0	0	0	16
7. Mini-course	80	0	20	0	0	0	0	0
8. Honors course	30	30	20	0	0	0	0	20
9. Advanced placement class	40	0	0	0	0	40	20	0
10. Mentorships	66	0	0	0	34	0	0	0
11. Community programs and sponsorships	100	0	0	0	0	0	0	0
12. Special school	24	0	18	11	18	11	18	0
13. Independent study	100	0	0	0	0	0	0	0
14. Tutoring	100	0	0	0	0	0	0	0
15. Other (list)	40	14	9	9	5	9	5	9

* The total number of districts responding was 363. The actual number of districts may vary by program prototype.

APPENDIX III (CONTINUED)

PERCENT OF PROGRAMS OFFERING PROTOTYPE BY CONTACT TIME
MIDDLE/JUNIOR HIGH (6-8)
N=363 DISTRICTS*

Program Prototype	(Percent of Programs) Number of Hours Per Week 1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40
1. Cluster grouping within regular class	48	17	8	6	5	0	8	8
2. Resource room and teacher	72	23	3	0	0	0	0	2
3. Itinerant teacher	83	17	0	0	0	0	0	0
4. Multi-age or ungraded class	56	13	13	9	0	0	0	9
5. Special class	59	20	10	4	3	0	<1	3
6. Seminar	78	11	0	0	0	0	0	11
7. Mini-course	78	0	0	0	22	0	0	0
8. Honors course	58	12	11	11	4	0	0	4
9. Advanced placement class	31	13	25	0	0	18	13	0
10. Mentorships	70	0	15	0	15	0	0	0
11. Community programs and sponsorships	100	0	0	0	0	0	0	0
12. Special school	15	0	0	0	24	15	31	15
13. Independent study	90	10	0	0	0	0	0	0
14. Tutoring	100	0	0	0	0	0	0	0
15. Other (list)	62	20	9	9	0	0	0	0

* The total number of districts responding was 363. The actual number of districts may vary by program prototype.

APPENDIX III (CONTINUED)

PERCENT OF PROGRAMS OFFERING PROTOTYPE BY CONTACT TIME
HIGH SCHOOL (9-12)
N=363 DISTRICTS*

Program Prototype	(Percent of Programs) Number of Hours Per Week 1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40
1. Cluster grouping within regular class	70	15	0	0	0	0	15	0
2. Resource room and teacher	46	18	0	0	18	0	18	0
3. Itinerant teacher	100	0	0	0	0	0	0	0
4. Multi-age or ungraded class	55	0	15	0	15	0	0	15
5. Special class	58	20	6	0	6	0	4	4
6. Seminar	79	7	7	0	0	0	0	7
7. Mini-course	75	0	25	0	0	0	0	0
8. Honors course	55	22	10	5	4	0	0	4
9. Advanced placement class	64	15	10	0	5	5	0	0
10. Mentorships	74	11	8	0	7	0	0	0
11. Community programs and sponsorships	80	0	20	0	0	0	0	0
12. Special school	25	0	0	0	25	0	33	17
13. Independent study	81	9	5	0	5	0	0	0
14. Tutoring	100	0	0	0	0	0	0	0
15. Other (list)	64	18	18	0	0	0	0	0

* The total number of districts responding was 363. The actual number of districts may vary by program prototype.

APPENDIX IV

Multiple Regression Analyses*

* The number of cases included in each regression analyses may vary due to differing numbers of students responding to each item.

TEXAS EDUCATION AGENCY
GIFTED/TALENTED CASE STUDY DATA
MODEL USING DISTRICT DEMOGRAPHICS

DEP VARIABLE: SUM PSAT VERBAL+MATH

ANALYSIS OF VARIANCE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	4	140.12410	35.03102591	11.107	0.0001
ERROR	872	2750.25902	3.15396677		
C TOTAL	876	2890.38312			

ROOT MSE	1.775941	R-SQUARE	0.0485
DEP MEAN	5.675029	ADJ R-SQ	0.0441
C.V.	31.29398		

PARAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > |T|	PARTIAL CORR TYPE I	VARIABLE LABEL
INTERCEP	1	7.29895234	0.48429914	15.071	0.0001	.	INTERCEPT
SUPREGN	1	-0.05935594	0.05444958	-1.090	0.2760	0.002205926	SUPER REGION
RADA	1	-0.22950485	0.04777913	-4.803	0.0001	0.01863325	REFINED ADA CATEGORY
MINPCT	1	-0.42029688	0.09664508	-4.349	0.0001	0.02789897	PERCENT MINORITY CATEGORY
WEALTH	1	0.09308640	0.09719369	0.958	0.3385	0.001050808	WEALTH CATEGORY

Note: Because of the coding of the question regarding RADA, a negative relationship between this variable and PSAT score indicates that students from larger districts tend to have higher PSAT scores.

TEXAS EDUCATION AGENCY
GIFTED/TALENTED CASE STUDY DATA
STUDENT DEMOGRAPHICS

DEP VARIABLE: SUM PSAT VERBAL+MATH

ANALYSIS OF VARIANCE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	6	88.65744116	14.77624019	4.726	0.0001
ERROR	354	1106.76084	3.12644305		
C TOTAL	360	1195.41828			

ROOT MSE	1.788175	R-SQUARE	0.0742
DEP MEAN	5.792244	ADJ R-SQ	0.0585
C.V.	30.5266		

PARAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > |T|	PARTIAL CORR TYPE I	VARIABLE LABEL
INTERCEP	1	4.28437248	1.12078715	3.805	0.0002	.	INTERCEPT
V2	1	0.29933270	0.10428294	2.870	0.0043	0.02971331	NUMBER YEARS IN GT PROGRAM
V3	1	0.10564698	0.04248717	2.487	0.0134	0.03236193	PARENTS' COMBINED INCOME
V5	1	0.20782839	0.09931526	2.093	0.0371	0.01062495	FATHER'S EDUCATION
V6	1	-0.12436449	0.12235029	-1.016	0.3101	0.002763718	MOTHER'S EDUCATION
V8	1	-0.49796561	0.89232258	-0.558	0.5772	0.001040206	TYPE OF INSTITUTION PLANNED
V10	1	0.08907974	0.12281400	0.725	0.4687	0.001483932	LEVEL OF EDUCATION PLANNED

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TEXAS EDUCATION AGENCY
GIFTED/TALENTED CASE STUDY DATA
MODEL USING PROGRAM EMPHASIS AND CLASS SIZE

DEP VARIABLE: PSUM PSAT VERBAL+MATH

ANALYSIS OF VARIANCE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	5	40.03067826	8.00613565	2.473	0.0307
ERROR	856	2771.07837	3.23724109		
C TOTAL	861	2811.10905			

ROOT MSE	1.799233	R-SQUARE	0.0142
DEP MEAN	5.668213	ADJ R-SQ	0.0085
C.V.	31.74251		

PARAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > |T|	PARTIAL CORR TYPE I	VARIABLE LABEL
INTERCEP	1	4.78908098	0.29976041	15.976	0.0001	.	INTERCEPT
V151A	1	0.56083127	0.26752435	2.096	0.0363	0.000922549	GENERAL INTELLECTUAL ABILITY
V151B	1	0.43015458	0.26331130	1.634	0.1027	0.000468717	SPECIFIC SUBJECT MATTER APTITUDE
V151C	1	0.74310976	0.32327967	2.299	0.0218	0.006527544	CREATIVE & PRODUCTIVE THINKING
V151D	1	0.12277333	0.47453201	0.259	0.7959	6.71560E-07	LEADERSHIP ABILITY
V152	1	0.14407284	0.06116119	2.356	0.0187	0.006440691	SIZE OF STUDENT'S GT CLASSES THIS YR

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TEXAS EDUCATION AGENCY
GIFTED/TALENTED CASE STUDY DATA
STUDENT EXPERIENCE

DEP VARIABLE: SUM PSAT VERBAL+MATH

ANALYSIS OF VARIANCE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	5	176.83459	35.36691812	11.366	0.0001
ERROR	848	2638.68883	3.11166135		
C TOTAL	853	2815.52342			

ROOT MSE	1.76399	R-SQUARE	0.0628
DEP MEAN	5.687354	ADJ R-SQ	0.0573
C.V.	31.01601		

PARAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > |T|	PARTIAL CORR TYPE I	VARIABLE LABEL
INTERCEP	1	4.95756627	0.35309881	14.040	0.0001	.	INTERCEPT
V13	1	-0.08504149	0.05038316	-1.291	0.1971	0.001001485	# SEMESTERS ENGLISH IN HIGH SCHOOL
V15	1	0.18548308	0.03428750	5.410	0.0001	0.03868392	# SEMESTERS MATH IN HIGH SCHOOL
V17	1	0.04195939	0.03393328	1.237	0.2166	0.001457494	# SEMESTERS SCIENCE IN HIGH SCHOOL
V19	1	0.12833006	0.04562827	2.813	0.0050	0.009550540	# SEMESTERS SOC. STUDIES IN HIGH SCHOOL
V31	1	-0.20546330	0.05825190	-3.527	0.0004	0.01445864	NUMBER HRS PER WEEK ON HOMEWORK THIS YR

TEXAS EDUCATION AGENCY
GIFTED/TALENTED CASE STUDY DATA
HONORS COURSES

DEP VARIABLE: SUM PSAT VERBAL+MATH

ANALYSIS OF VARIANCE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	3	144.38126	48.12708755	15.347	0.0001
ERROR	804	2521.23755	3.13586760		
C TOTAL	807	2665.61881			

ROOT MSE	1.770838	R-SQUARE	0.0542
DEP MEAN	5.680693	ADJ R-SQ	0.0508
C.V.	31.17292		

PARAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > |T|	PARTIAL CORR TYPE I	VARIABLE LABEL
INTERCEP	1	6.15025548	0.37004935	16.620	0.0001	.	INTERCEPT
V162	1	0.02052805	0.02805356	0.732	0.4645	0.02238708	# HONORS COURSES-STUDENT'S GRADE LEVEL
V164	1	0.12719475	0.03371436	3.773	0.0002	0.01666731	# HONORS COURSES COMPLETED IN 1986-87
V168	1	-0.59815288	0.15984684	-3.742	0.0002	0.01711833	FINISHD AP COURSES OF COL BOARD 1986-87

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Note: Because of the coding of the question regarding completion of AP courses, a negative relationship between this variable and PSAT score indicates that students who completed AP courses during the 1986-87 school year tended to have higher PSAT scores.

T E X A S E D U C A T I O N A G E N C Y
GIFTED/TALENTED CASE STUDY DATA
EXTRA-CURRUCULAR AND WORK EXPERIENCE

DEP VARIABLE: SUM PSAT VERBAL+MATH

ANALYSIS OF VARIANCE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	3	7.89073564	2.63024521	0.795	0.4998
ERROR	748	2474.91645	3.30871183		
C TOTAL	751	2482.80718			

ROOT MSE	1.818988	R-SQUARE	0.0032
DEP MEAN	5.69016	ADJ R-SQ	-0.0008
C.V.	31.96723		

PARAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > |T|	PARTIAL CORR TYPE I	VARIABLE LABEL
INTERCEP	1	5.69848415	0.16685289	34.153	0.0001	.	INTERCEPT
S73_97	1	0.01414857	0.02453171	0.577	0.5643	0.0000010786	SUM OF XCURR (L-H)
P73_97	1	-0.01408404	0.02592193	-0.543	0.5871	0.000213147	SUM OF XCURR (IF B,C,OR D)
WORK	1	-0.04323360	0.02898673	-1.491	0.1363	0.002965194	PART-TIME JOB,NOT SCHOOL RELATED

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T E X A S E D U C A T I O N A G E N C Y
GIFTED/TALENTED CASE STUDY DATA
STUDENT PERCEPTIONS

DEP VARIABLE: SUM PSAT VERBAL+MATH

ANALYSIS OF VARIANCE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	2	28.87084268	14.43542134	4.403	0.0125
ERROR	881	2888.07373	3.27817676		
C TOTAL	883	2916.94457			

ROOT MSE	1.810574	R-SQUARE	0.0099
DEP MEAN	5.684389	ADJ R-SQ	0.0076
C.V.	31.85168		

PARAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > |T|	PARTIAL CORR TYPE I	VARIABLE LABEL
INTERCEP	1	6.63840449	0.40071147	16.567	0.0001	.	INTERCEPT
S36_55	1	-0.005846827	0.005222426	-1.120	0.2632	0.000222636	EXTENT GT PROG MET CRITERIA
S59_72	1	-0.04550290	0.01550663	-2.934	0.0034	0.009679284	LOW=LESS NEED FOR STRUCTURE

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TEXAS EDUCATION AGENCY
GIFTED/TALENTED CASE STUDY DATA
TEACHER SKILLS

DEP VARIABLE: SUM PSAT VERBAL+MATH

ANALYSIS OF VARIANCE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	9	61.10285016	6.78920557	2.145	0.0252
ERROR	374	1183.95705	3.16566055		
C TOTAL	383	1245.05990			

ROOT MSE	1.77923	R-SQUARE	0.0491
DEP MEAN	5.783854	ADJ R-SQ	0.0262
C.V.	30.76202		

PARAMETER ESTIMATES

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR HO: PARAMETER=0	PROB > |T|	PARTIAL CORR TYPE I	VARIABLE LABEL
INTERCEP	1	5.49154886	0.47117009	11.655	0.0001	.	INTERCEPT
V128	1	0.04878901	0.11613364	0.420	0.6746	0.001257721	ANALYS OF INDIVID INTRSTS,ABILS,STYLES
V129	1	0.02740627	0.14761428	0.186	0.8528	0.000086088	ORGNIZ/IMPLMNT ACTIVITS TO STIM INTRSTS
V130	1	0.12326495	0.11268715	1.094	0.2747	0.001846979	GUIDANCE IN PROBLEM FINDNG AND FOCUSING
V131	1	0.15610679	0.11192547	1.395	0.1639	0.002162553	STRATS FOR MAKNG SPEC CHANGES IN CURRIC
V132	1	-0.33727166	0.13845497	-2.436	0.0153	0.03398874	ASSIST IDENTIFYNG METHODOL RESRC MATRLS
V133	1	-0.10197214	0.13360172	-0.763	0.4458	0.001276784	ASSIST ID/APPROP USE OF ADV LEV RESRCES
V134	1	-0.07381661	0.12635408	-0.584	0.5594	0.000055352	PROCEDURS TO GUIDE REVISION OF PRODUCTS
V135	1	0.25527929	0.14008766	1.822	0.0692	0.009535677	ASSIST--MODES COMMUN FOR STUD PRODUCTNS
V136	1	-0.02493411	0.12886535	-0.193	0.8467	0.000100092	ASSIST--OUTLETS/AUDIENCS FOR STUD WORK

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APPENDIX V

Factor Analyses*

* The number of cases included in each factor analyses may vary due to differing numbers of students responding to each item.

TEXAS EDUCATION AGENCY
GIFTED/TALENTED CASE STUDY DATA
STUDENT EXTRACURRICULAR ACTIVITIES

INITIAL FACTOR METHOD: PRINCIPAL COMPONENTS

PRIOR COMMUNALITY ESTIMATES: ONE

EIGENVALUES OF THE CORRELATION MATRIX: TOTAL = 25 AVERAGE = 1

	1	2	3	4	5	6	7	8	9
EIGENVALUE	3.396929	1.574351	1.479531	1.287552	1.247391	1.192363	1.134348	1.040758	1.030625
DIFFERENCE	1.822578	0.094820	0.191980	0.040161	0.055028	0.058015	0.093590	0.010133	0.072589
PROPORTION	0.1359	0.0630	0.0592	0.0515	0.0499	0.0477	0.0454	0.0416	0.0412
CUMULATIVE	0.1359	0.1989	0.2580	0.3095	0.3594	0.4071	0.4525	0.4941	0.5354

	10	11	12	13	14	15	16	17	18
EIGENVALUE	0.958037	0.938568	0.892835	0.856155	0.832815	0.784772	0.759902	0.742935	0.686505
DIFFERENCE	0.019469	0.045733	0.036680	0.023341	0.048043	0.024870	0.016967	0.056430	0.019012
PROPORTION	0.0383	0.0375	0.0357	0.0342	0.0333	0.0314	0.0304	0.0297	0.0275
CUMULATIVE	0.5737	0.6112	0.6469	0.6812	0.7145	0.7459	0.7763	0.8060	0.8335

	19	20	21	22	23	24	25
EIGENVALUE	0.667493	0.652036	0.624587	0.615255	0.585150	0.531901	0.487207
DIFFERENCE	0.015456	0.027449	0.009332	0.030105	0.053248	0.044695	
PROPORTION	0.0267	0.0261	0.0250	0.0246	0.0234	0.0213	0.0195
CUMULATIVE	0.8602	0.8862	0.9112	0.9358	0.9592	0.9805	1.0000

9 FACTORS WILL BE RETAINED BY THE MINEIGEN CRITERION

FACTOR PATTERN

	FACTOR1	FACTOR2	FACTOR3	FACTOR4	FACTOR5	
V73	0.25618	0.44369	0.12446	0.11846	-0.39270	OLYMPICS OF THE MIND
V74	0.40515	0.21899	0.02941	0.25432	-0.18351	FUTURE PROLEM-SOLVING ACTIVITES
V75	0.25491	0.53600	0.02472	-0.07162	-0.33518	ACADEMIC DECATHLON
V76	0.40689	0.20504	0.07443	-0.19263	-0.09738	SPECIAL SUMMER PROGRAM FOR GT STUDENTS
V77	0.34885	0.12820	-0.15155	-0.30463	0.22572	ACADEMIC HONOR SOCIETY
V78	0.23664	0.06574	-0.07326	0.23789	0.44255	ART ACTIVITY
V79	0.40955	-0.08951	0.56764	0.17366	0.22717	ATHLETCS-INTRAMUR,JR VARS,COMMUN SPORTS
V80	0.24973	-0.13061	0.68684	0.12763	0.19441	ATHLETCS-VARSTY OR AMATEUR-LEVEL SPORTS
V81	0.25305	-0.08791	0.24530	-0.12591	0.23933	CAREER-ORIENTED ACTIVITY
V82	0.51000	-0.15498	0.03431	-0.03565	-0.08540	COMMUNITY OR SERVICE ACTIVITY
V83	0.34625	0.28891	0.10153	-0.20834	-0.03826	COMPUTER ACTIVITY
V84	0.41133	-0.42068	0.11243	0.04387	-0.36508	DANCE ACTIVITY
V85	0.49755	0.05434	-0.07843	-0.16818	0.09524	DEBATING OR PUBLIC SPEAKING
V86	0.37627	0.02601	-0.20527	0.43656	0.11689	ETHNIC OR CROSS-CULTURAL ACTIVITY
V87	0.32893	0.15907	-0.14139	0.49321	0.12511	FOREIGN EXCHANGE OR STUDY ABROAD
V88	0.40811	0.06487	-0.22623	0.37235	0.09726	FOREIGN LANGUAGE ACTIVITY
V89	0.52390	-0.02084	-0.02847	-0.30038	0.25719	GOVERNMENT OR POLITICAL ACTIVITY
V90	0.36120	0.02628	-0.26136	-0.23202	0.31784	JOURNALISM OR LITERARY ACTIVITY
V91	0.14941	0.14992	0.10287	0.13739	-0.04082	JUNIOR RESERVE OFFICERS TRAINING CORPS
V92	0.18988	-0.19540	-0.44260	-0.00330	-0.05270	MUSIC: INSTRUMENTAL
V93	0.35443	-0.25022	-0.30777	0.17638	-0.17777	MUSIC: VOCAL
V94	0.43993	-0.36914	-0.08519	-0.01805	-0.14400	RELIGIOUS ACTIVITY OR ORGANIZATION
V95	0.39590	0.37363	0.02597	-0.20021	-0.07777	SCIENCE OR MATHEMATICS ACTIVITY
V96	0.39485	-0.45792	0.15504	-0.08253	-0.35134	SCHOOL-SPIRIT ACTIVITY
V97	0.39573	-0.13819	-0.16935	-0.25740	0.02928	THEATRE ACTIVITY

T E X A S E D U C A T I O N A G E N C Y
GIFTED/TALENTED CASE STUDY DATA
STUDENT EXTRACURRICULAR ACTIVITIES

INITIAL FACTOR METHOD: PRINCIPAL COMPONENTS

FACTOR PATTERN

	FACTOR6	FACTOR7	FACTOR8	FACTOR9	
V73	-0.03368	0.10412	-0.10862	0.03283	OLYMPICS OF THE MIND
V74	0.00482	-0.06780	-0.01869	-0.03921	FUTURE PROBLEM-SOLVING ACTIVITES
V75	-0.02009	0.17530	0.07532	0.17546	ACADEMIC DECATHLON
V76	-0.05195	0.04598	0.04164	0.11119	SPECIAL SUMMER PROGRAM FOR GT STUDENTS
V77	0.16964	-0.33518	0.24130	0.39704	ACADEMIC HONOR SOCIETY
V78	0.11795	0.02443	-0.30261	-0.28593	ART ACTIVITY
V79	0.18310	0.01328	-0.19093	0.19818	ATHLETCS-INTRAMUR,JR VARS,COMMUN SPORTS
V80	0.06503	-0.05195	-0.08099	0.22548	ATHLETCS-VARSTY OR AMATEUR-LEVEL SPORTS
V81	0.02787	0.23087	0.40833	-0.19621	CAREER-ORIENTED ACTIVITY
V82	0.34714	0.08376	0.07546	-0.21173	COMMUNITY OR SERVICE ACTIVITY
V83	0.16548	-0.15509	-0.19712	-0.49295	COMPUTER ACTIVITY
V84	-0.32523	-0.18619	0.10248	-0.11801	DANCE ACTIVITY
V85	-0.34780	0.20733	-0.25877	0.12568	DEBATING OR PUBLIC SPEAKING
V86	-0.18653	-0.11434	0.09683	-0.00504	ETHNIC OR CROSS-CULTURAL ACTIVITY
V87	-0.22432	0.01817	0.22680	-0.14399	FOREIGN EXCHANGE OR STUDY ABROAD
V88	-0.05679	-0.28152	0.01038	0.20200	FOREIGN LANGUAGE ACTIVITY
V89	-0.20767	-0.03920	0.13731	0.17573	GOVERNMENT OR POLITICAL ACTIVITY
V90	-0.11406	0.11852	0.15341	-0.30789	JOURNALISM OR LITERARY ACTIVITY
V91	0.20904	0.56812	0.42279	0.03574	JUNIOR RESERVE OFFICERS TRAINING CORPS
V92	0.47240	-0.06105	0.10467	0.20438	MUSIC: INSTRUMENTAL
V93	0.19999	0.25209	-0.22878	0.14007	MUSIC: VOCAL
V94	0.34234	0.11041	-0.15847	-0.06720	RELIGIOUS ACTIVITY OR ORGANIZATION
V95	0.20943	-0.37488	-0.06084	-0.12656	SCIENCE OR MATHEMATICS ACTIVITY
V96	-0.17979	-0.21193	0.21366	-0.12596	SCHOOL-SPIRIT ACTIVITY
V97	-0.29589	0.33513	-0.34615	0.11394	THEATRE ACTIVITY

VARIANCE EXPLAINED BY EACH FACTOR

FACTOR1	FACTOR2	FACTOR3	FACTOR4	FACTOR5	FACTOR6	FACTOR7	FACTOR8	FACTOR9
3.396929	1.574351	1.479531	1.287552	1.247391	1.192363	1.134348	1.040758	1.030625

FINAL COMMUNALITY ESTIMATES: TOTAL = 13.383848

V73	V74	V75	V76	V77	V78	V79	V80	V81	V82	V83	V84	V85
0.471081	0.317832	0.537953	0.278648	0.661843	0.505975	0.689159	0.669589	0.464364	0.471900	0.591831	0.658877	0.540720

V88	V87	V88	V89	V90	V91	V92	V93	V94	V95	V96	V97
0.445913	0.535218	0.493435	0.526489	0.499701	0.622415	0.552537	0.521178	0.517137	0.547258	0.658644	0.604152

T E X A S E D U C A T I O N A G E N C Y
GIFTED/TALENTED CASE STUDY DATA
STUDENT PERCEPTIONS OF THE PROGRAM

INITIAL FACTOR METHOD: PRINCIPAL COMPONENTS

PRIOR COMMUNALITY ESTIMATES: ONE

EIGENVALUES OF THE CORRELATION MATRIX: TOTAL = 12 AVERAGE = 1

	1	2	3	4	5	6	7	8	9	10	11	12
EIGENVALUE	4.828054	1.250746	0.855851	0.734184	0.721558	0.683201	0.628470	0.554561	0.473716	0.453402	0.426938	0.389318
DIFFERENCE	3.577308	0.394895	0.121666	0.012626	0.038357	0.054731	0.073909	0.080846	0.020313	0.026464	0.037620	
PROPORTION	0.4023	0.1042	0.0713	0.0612	0.0601	0.0569	0.0524	0.0462	0.0395	0.0378	0.0356	0.0324
CUMULATIVE	0.4023	0.5066	0.5779	0.6391	0.6992	0.7561	0.8085	0.8547	0.8942	0.9320	0.9676	1.0000

2 FACTORS WILL BE RETAINED BY THE MINEIGEN CRITERION

FACTOR PATTERN

	FACTOR1	FACTOR2	
V36	0.50054	0.67904	PROGRAM ENCOURAGD ME TO DO INDEP RESRCH
V37	0.52433	0.64330	LED TO USE OF PRIM & SEC RESRCH SOURCES
V42	0.54299	0.35493	GT INVOLVED WORK NOT USUALLY DONE IN HS
V44	0.60374	-0.16251	GT TEACHRS ASKD QUESTNS W/ NO RIGHT ANS
V46	0.65330	-0.15111	GT TCHRS ENCRGD US TO FIND OUT OURSELVS
V47	0.70269	-0.18794	GT TEACHERS KEPT ASKING FOR MORE IDEAS
V49	0.71979	-0.13949	GT TCHRS ENCOURGD US TO GO BEYOND FACTS
V50	0.68640	-0.22021	GT TEACHERS ASKED US TO TAKE GUESSES
V52	0.73537	-0.19203	GT TCHRS ENCRGD EXPRSSING UNUSUAL IDEAS
V53	0.69622	-0.09939	GT TCHRS ENCRGD US TO ID HARD PROBLEMS
V54	0.61245	-0.20849	GT TCHRS STRESSED MEANING BEHIND EVENTS
V55	0.57693	0.08430	FOUND PROGRAM INTELLECTLLY CHALLENGING

VARIANCE EXPLAINED BY EACH FACTOR

FACTOR1	FACTOR2
4.828054	1.250746

FINAL COMMUNALITY ESTIMATES: TOTAL = 6.078800

V36	V37	V42	V44	V46	V47	V49	V50	V52	V53	V54	V55
0.711636	0.688760	0.420812	0.390907	0.449633	0.529088	0.537550	0.519637	0.577651	0.494601	0.418567	0.339959

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TEXAS EDUCATION AGENCY
GIFTED/TALENTED CASE STUDY DATA
STUDENT NEED FOR STRUCTURE

INITIAL FACTOR METHOD: PRINCIPAL COMPONENTS

PRIOR COMMUNALITY ESTIMATES: ONE

EIGENVALUES OF THE CORRELATION MATRIX: TOTAL = 14 AVERAGE = 1

	1	2	3	4	5	6	7
EIGENVALUE	2.468668	1.784058	1.337774	1.018145	0.949925	0.892797	0.851186
DIFFERENCE	0.684609	0.446285	0.319629	0.068220	0.057128	0.041610	0.064010
PROPORTION	0.1763	0.1274	0.0956	0.0727	0.0679	0.0638	0.0608
CUMULATIVE	0.1763	0.3038	0.3993	0.4720	0.5399	0.6037	0.6645

	8	9	10	11	12	13	14
EIGENVALUE	0.787176	0.734512	0.703544	0.686929	0.636591	0.585927	0.562769
DIFFERENCE	0.052664	0.030968	0.016616	0.050337	0.050665	0.023157	
PROPORTION	0.0562	0.0525	0.0503	0.0491	0.0455	0.0419	0.0402
CUMULATIVE	0.7207	0.7732	0.8234	0.8725	0.9180	0.9598	1.0000

4 FACTORS WILL BE RETAINED BY THE MINEIGEN CRITERION

FACTOR PATTERN

	FACTOR1	FACTOR2	FACTOR3	FACTOR4	
V59	0.55390	-0.23913	0.04119	0.20197	LIKE CLASS THAT FOLLOWS TEXT CLOSELY
V60	0.22689	0.29669	0.04261	0.79579	REVISE BORROWED NOTES TO FIT OWN STYLE
V61	0.05937	0.42444	0.51179	-0.25640	FINISH WORK ONLY WHEN SPECIFIC DUE DATE
V62	0.18645	0.60499	0.16011	0.12719	SET OWN GOALS WITHOUT PRODDING
V63	-0.43213	0.16358	-0.46794	0.02214	LIKE TO BE SHOWN HOW WORK SHOULD LOOK
V64	0.58013	-0.32375	0.05180	0.27744	TAKE NOTES EXACTLY HOW LECTURE ORGNIZED
V65	0.48343	0.14326	-0.53882	-0.08745	LIKE TO BE ABLE TO DO WORK MY OWN WAY
V66	-0.14856	0.68836	0.14555	0.11591	ORGANIZE THINGS CAREFLLY BEFORE I START
V67	0.45177	-0.30740	0.25744	0.00933	LIKE CLASS ACTVTIES SAME ORDER EACH DAY
V68	0.51676	0.28602	-0.43098	-0.16140	LEARN BEST WHEN ALLOWED OWN SCHEDULE
V69	0.61475	-0.19130	0.19448	-0.22431	LIKE TEACHER TO TELL EXACTLY WHAT TO DO
V70	0.41007	0.35869	-0.10962	-0.08812	NEED LITTLE HELP FROM TCHR TO PLAN WORK
V71	0.25592	0.24247	0.39108	-0.21116	RATHER HAVE SOMEONE TELL PROBLEM SOLUTN
V72	0.45861	0.25769	-0.24238	-0.18653	ABLE TO LEARN ON MY OWN

VARIANCE EXPLAINED BY EACH FACTOR

FACTOR1	FACTOR2	FACTOR3	FACTOR4
2.468668	1.784058	1.337774	1.018145

FINAL COMMUNALITY ESTIMATES: TOTAL = 6.608644

V59	V60	V61	V62	V63	V64	V65
0.406482	0.774610	0.511336	0.442591	0.432952	0.521016	0.552196

V66	V67	V68	V69	V70	V71	V72
0.530524	0.364952	0.560643	0.502653	0.316600	0.321817	0.370271

T E X A S E D U C A T I O N A G E N C Y
GIFTED/TALENTED CASE STUDY DATA
TEACHER SKILLS

INITIAL FACTOR METHOD: PRINCIPAL COMPONENTS

PRIOR COMMUNALITY ESTIMATES: ONE

EIGENVALUES OF THE CORRELATION MATRIX: TOTAL = 9 AVERAGE = 1

	1	2	3	4	5	6	7	8	9
EIGENVALUE	4.130587	1.069676	0.816587	0.716439	0.680434	0.520650	0.456490	0.337593	0.271544
DIFFERENCE	3.060911	0.253088	0.100148	0.036005	0.159784	0.064161	0.118898	0.066049	
PROPORTION	0.4590	0.1189	0.0907	0.0796	0.0756	0.0579	0.0507	0.0375	0.0302
CUMULATIVE	0.4590	0.5778	0.6685	0.7481	0.8237	0.8816	0.9323	0.9698	1.0000

2 FACTORS WILL BE RETAINED BY THE MINEIGEN CRITERION

FACTOR PATTERN

	FACTOR1	FACTOR2	
V128	0.52188	0.54571	ANALYS OF INDIVID INTRSTS,ABILS,STYLES
V129	0.70210	0.25340	ORGNIZ/IMPLMNT ACTIVITS TO STIM INTRSTS
V130	0.45007	0.58379	GUIDANCE IN PROBLEM FINDNG AND FOCUSING
V131	0.56555	0.13249	STRATS FOR MAKNG SPEC CHANGES IN CURRIC
V132	0.74457	-0.42883	ASSIST IDENTIFYNG METHODOL RESRC MATRLS
V133	0.77660	-0.30172	ASSIST ID/APPROP USE OF ADV LEV RESRCES
V134	0.75220	-0.24417	PROCEDURS TO GUIDE REVISION OF PRODUCTS
V135	0.77795	-0.11560	ASSIST--MODES COMMUN FOR STUD PRODUCTNS
V136	0.71720	0.03739	ASSIST--OUTLETS/AUDIENCS FOR STUD WORK

VARIANCE EXPLAINED BY EACH FACTOR

FACTOR1	FACTOR2
4.130587	1.069676

FINAL COMMUNALITY ESTIMATES: TOTAL = 5.200262

V128	V129	V130	V131	V132	V133	V134	V135	V136
0.570153	0.557154	0.543377	0.337403	0.738277	0.694141	0.625417	0.618571	0.515769

COMPLIANCE STATEMENT

TITLE VI, CIVIL RIGHTS ACT OF 1964; THE MODIFIED COURT ORDER, CIVIL ACTION 5281, FEDERAL DISTRICT COURT, EASTERN DISTRICT OF TEXAS, TYLER DIVISION

Reviews of local education agencies pertaining to compliance with Title VI Civil Rights Act of 1964 and with specific requirements of the Modified Court Order, Civil Action No. 5281, Federal District Court, Eastern District of Texas, Tyler Division are conducted periodically by staff representatives of the Texas Education Agency. These reviews cover at least the following policies and practices:

(1) acceptance policies on student transfers from other school districts;

(2) operation of school bus routes or runs on a non-segregated basis;

(3) nondiscrimination in extracurricular activities and the use of school facilities;

(4) nondiscriminatory practices in the hiring, assigning, promoting, paying, demoting, reassigning, or dismissing of faculty and staff members who work with children;

(5) enrollment and assignment of students without discrimination on the basis of race, color, or national origin;

(6) nondiscriminatory practices relating to the use of a student's first language; and

(7) evidence of published procedures for hearing complaints and grievances.

In addition to conducting reviews, the Texas Education Agency staff representatives check complaints of discrimination made by a citizen or citizens residing in a school district where it is alleged discriminatory practices have occurred or are occurring.

Where a violation of Title VI of the Civil Rights Act is found, the findings are reported to the Office for Civil Rights, U.S. Department of Education.

If there is a direct violation of the Court Order in Civil Action No. 5281 that cannot be cleared through negotiation, the sanctions required by the Court Order are applied.

TITLE VII, CIVIL RIGHTS ACT OF 1964; EXECUTIVE ORDERS 11246 AND 11375; TITLE IX, 1973 EDUCATION AMENDMENTS; REHABILITATION ACT OF 1973 AS AMENDED; 1974 AMENDMENTS TO THE WAGE-HOUR LAW EXPANDING THE AGE DISCRIMINATION IN EMPLOYMENT ACT OF 1967; AND VIETNAM ERA VETERANS READJUSTMENT ASSISTANCE ACT OF 1972 AS AMENDED IN 1974.

It is the policy of the Texas Education Agency to comply fully with the nondiscrimination provisions of all federal and state laws and regulations by assuring that no person shall be excluded from consideration for recruitment, selection, appointment, training, promotion, retention, or any other personnel action, or be denied any benefits or participation in any programs or activities which it operates on the grounds of race, religion, color, national origin, sex, handicap, age, or veteran status (except where age, sex, or handicap constitute a bona fide occupational qualification necessary to proper and efficient administration). The Texas Education Agency makes positive efforts to employ and advance in employment all protected groups.

Texas Education Agency
1701 North Congress Avenue
Austin, Texas 78701

RE9-726-02

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